

SCHEDULES

Tuesday, May 25
A.M.
Sessions

Tuesday,
May 25, 2010

Special Session 04	Mathematical Analysis of PDE Models in Materials Science Organized by: Toyohiko Aiki, Nobuyuki Kenmochi, Adrian Muntean	Location POT 006
10:45-11:15	Irena Pawłow (PAN and Military Univ. of Warsaw, Poland) Sixth Order Cahn-Hilliard Type Equation	Abstracts p. 31
11:15-11:45	Akio Ito (Kinki University, Japan) Fractal Dimension of a Global Attractor for a Phase Field Model with Constraints	Abstracts p. 29
11:45-12:15	Kota Kumazaki (Nagoya Institute of Technology, Japan) Periodic Solutions for Non-Isothermal Phase Transition Models	Abstracts p. 29

Special Session 05	Qualitative Behavior of Dissipative Dynamical Systems Organized by: Alain Miranville, Maurizio Grasselli	Location GER 037
10:45-11:15	Irena Lasiecka (University of Virginia, USA) Smooth Attractors for Kirchhoff Bussinesque Flows with Supercritical Nonlinearity	Abstracts p. 34
11:15-11:45	Nobuyuki Kenmochi (Chiba University, Japan) Parabolic Variational Inequalities with Environmental Constraints	Abstracts p. 34
11:45-12:15	Peter Takac (Universität Rostock, Germany) Phase Transition Solutions for the Cahn-Hilliard Equation with a Degenerate Diffusion	Abstracts p. 36

Special Session 10	Delay Differential Equations Organized by: Hans-Otto Walther , Bernhard Lani-Wayda	Location HSZ E05
10:45-11:15	Serhiy Yanchuk (Humboldt University of Berlin, Germany) Reappearance and Stability of Periodic Solutions in Systems with Time Delay	Abstracts p. 52
11:15-11:45	Matthias Wolfrum (WIAS-Berlin, Germany) Scaling Properties of the Spectrum for ODEs with Large Delay	Abstracts p. 52
11:45-12:15	Thomas Erneux (Universite Libre de Bruxelles, Belgium) Bifurcation of the Essential Spectrum for Neutral Delay Differential Equations	Abstracts p. 50

Special Session 12	Nonautonomous Dynamics Organized by: Russell Johnson, Arno Berger, Sylvia Novo	Location HSZ E03
10:45-11:15	Carmen Nunez (Universidad de Valladolid, Spain) Monotonone and Sublinear Skew-Product Semiflows I: The General Case	Abstracts p. 61
11:15-11:45	Ana Sanz (University of Valladolid, Spain) Monotonone and Sublinear Skew-Product Semiflows II: Two-Dimensional Systems of Differential Equations	Abstracts p. 62

Special Session 13	Stability of Partial Differential Equations and Evolution Equations Organized by: Yuri Latushkin, Roland Schnaubelt	Location POT 251
10:45-11:15	Wolf-Jürgen Beyn (Bielefeld University, Germany) Stability of Rotating Patterns and the Freezing Method	Abstracts p. 63
11:15-11:45	Mark Lichtner (WIAS, Berlin, Germany) Evolution Equations for Simulation and Stability Analysis of Semiconductor Lasers	Abstracts p. 64
11:45-12:15	Hannes Uecker (Universität Oldenburg, Germany) Modulation Equations for the Evolution of Wavepackets in Vlasov-Poisson Plasmas	Abstracts p. 65

Special Session 14	Geometric Mechanics Organized by: Manuel de Leon, Juan Pablo Ortega, Andrew Lewis	Location POT 013
10:45-11:15	Tudor Ratiu (Ecole Polytechnique Féd., Lausanne, Switzerland) The Variational Structure of Complex Fluid Equations	Abstracts p. 68
11:15-11:45	Joris Vankerschaver (Ghent University, Belgium) Modeling Fluid-Structure Interactions Using Symplectic Reduction	Abstracts p. 68

Special Session 15	Magnetohydrodynamics: Mathematical Problems and Astrophysical Applications Organized by: Antonio Ferriz-Mas, Rainer Hollerbach, Manuel Nunez, Frank Stefani, Andreas Tilgner	Location HSZ 103
10:45-11:15	Renzo Ricca (University Milano-Bicocca, Italy) New Lower Bounds on the Energy of Knots and Braids	Abstracts p. 74
11:15-11:45	Mitchell Berger (University of Exeter, England) Braid Theory and Self-Organized Criticality in MHD	Abstracts p. 70
11:45-12:15	Gunnar Hornig (University of Dundee, United Kingdom, Scotland) Turbulent Relaxation of Braided Magnetic Fields	Abstracts p. 72

Special Session 17	Dynamical Networks and Their Applications in Neuroscience Organized by: Yuri Maistrenko, Georgi Medvedev	Location HSZ 105
10:45-11:15	Alla Borisjuk (University of Utah, USA) Role of Dendrites in Noise-Induced Synchronization	Abstracts p. 78
11:15-11:45	Stephen Coombes (University of Nottingham, England) Dynamics of Morris-Lecar Networks	Abstracts p. 79
11:45-12:15	Oleh Omel'chenko (WIAS Berlin, Germany) On the Dynamical Nature of Chimera States	Abstracts p. 81

Special Session 18	Scaling and Liouville theorems in studies of PDEs Organized by: Peter Polacik, Pavol Quittner	Location GER 039
10:45-11:15	Eiji Yanagida (Tokyo Institute of Technology, Japan) Homoclinic and Heteroclinic Orbits for a Semilinear Parabolic Equation: Part I	Abstracts p. 86
11:15-11:45	Marek Fila (Comenius University, Slovak Republic) Homoclinic and Heteroclinic Orbits for a Semilinear Parabolic Equation: Part II	Abstracts p. 83

Special Session 23	Nonlinear Elliptic PDEs and Geometric Analysis Organized by: Wenxiong Chen, Guofang Wang	Location HSZ 201
10:45-11:15	Jürgen Jost (Max Planck Inst. for Math. in the Sci., Germany) Dirac Harmonic Maps and Boundaries	Abstracts p. 103
11:15-11:45	Yihong Du (University of New England, Australia) Finite Morse Index Solutions of an Elliptic Equation with Supercritical Exponent	Abstracts p. 103
11:45-12:15	Ling Yang (Max Planck Inst. for Math. in the Sci., Germany) Regularity of Harmonic Maps into Spheres and Applications to Bernstein Problems	Abstracts p. 105

Special Session 25	Analysis, Optimization and Control of Nonlinear Partial Differential Equation Evolution Systems Organized by: George Avalos, Lorena Bociu	Location HSZ 401
10:45-11:15	Fatiha Alabau-Boussouira (Metz Univ. and INRIA t. p. CORIDA, France) On Some Recent Trends on Nonlinear Stabilization of PDE's and ODEs with Applications to Semi-Discretization PDE's	Abstracts p. 111
11:15-11:45	Helene Frankowska (University Pierre and Marie Curie, France) Lefloch Solutions to Initial/Boundary Value Problems for Scalar Conservation Laws	Abstracts p. 113

Special Session 29	Applied Analysis and Dynamics in Engineering and Sciences Organized by: Thomas C. Hagen, Janos Turi	Location HSZ 204
10:45-11:15	Ferenc Hartung (University of Pannonia, Veszprem, Hungary) Asymptotic Behavior of Nonlinear Volterra Integral Equations	Abstracts p. 128
11:15-11:45	Janos Turi (UTD, USA) Optimal Control of Variational Inequalities	Abstracts p. 131
11:45-12:15	Peter Giesl (University of Sussex, UK, England) Numerical Determination of the Basin of Attraction for Asymptotically Autonomous Dynamical Systems	Abstracts p. 128

Special Session 30	Lagrangian Coherent Structures and Invariant Manifolds: Analysis and Applications Organized by: George Haller, Wenbo Tang	Location POT 151
10:45-11:15	George Haller (McGill University, Canada) Lagrangian Coherent Structures, Finite-Time Hyperbolicity and Lyapunov Exponents	Abstracts p. 132
11:15-11:45	Shawn Shadden (Illinois Institute of Technology, USA) Lagrangian Coherent Structures in Cardiovascular Applications	Abstracts p. 134
11:45-12:15	Melissa Green (Navel Research Laboratory, USA) Lagrangian Coherent Structures in Bio-Inspired Fluids	Abstracts p. 132

Special Session 31	Emergence and Dynamics of Patterns in Nonlinear Partial Differential Equations from Mathematical Science Organized by: Danielle Hilhorst, Yoshihisa Morita, Kunimochi Sakamoto	Location GER 054
10:45-11:15	Hiroshi Matano (University of Tokyo, Japan) Refined Singular Limit of the Allen-Cahn Equation	Abstracts p. 137
11:15-11:45	Piotr Rybka (University of Warsaw, Poland) A Comparison Principle for Hamilton-Jacobi Equations with Discontinuous Hamiltonian	Abstracts p. 138

Special Session 35	Geometric and Singular Analysis Organized by: Gerardo Mendoza, Michael Ruzhansky, B.-Wolfgang Schulze	Location WIL A221
10:15-10:45	Bert-Wolfgang Schulze (University of Potsdam, Germany) Variable Branching Asymptotics on Manifolds with Edge	Abstracts p. 152
10:45-11:45	Gregory Eskin (UCLA, USA) Acoustic and Optical Black Holes	Abstracts p. 150

Special Session 39	Mathematical Cancer Modelling Organized by: Thomas Hillen, Urszula Ledzewicz, Arnaud Chauviere	Location WIL A120
10:45-11:15	Luigi Preziosi (Politecnico di Torino, Italy) Mechanical Aspects of Tumour Growth	Abstracts p. 170
11:15-11:45	Andreas Deutsch (Technical University Dresden, Germany) Analyzing Emergent Behaviour in Cellular Automaton Models of Cancer Invasion	Abstracts p. 166

Special Session 42	Interface Problems Organized by: Gunduz Caginalp, James Glimm, Alain Miranville	Location GER 038
10:45-11:15	Przemyslaw Górka (Warsaw Universities and Univ. de Talca, Poland) Stochastic Evolution of 2D Crystals	Abstracts p. 182
11:15-11:45	Cecilia Cavaterra (Università degli Studi di Milano, Italy) Cahn-Hilliard Equations with Memory and Dynamic Boundary Conditions	Abstracts p. 180
11:45-12:15	Riccarda Rossi (University of Brescia, Italy) On the Cahn-Hilliard Equation with a Chemical Potential Dependent Mobility	Abstracts p. 183

Special Session 44	Inverse Problems Organized by: Lassi Paivarinta, Gunther Uhlmann	Location GER 007
10:45-11:15	Matti Lassas (University of Helsinki, Finland) Statistical Inverse Problems and Discretization of Continuous Inverse Problems	Abstracts p. 191
11:15-11:45	Katya Krupchyk (University of Helsinki, Finland) Transmission Eigenvalues for Perturbed Operators with Constant Coefficients	Abstracts p. 191
11:45-12:15	Kim Knudsen (Technical University of Denmark) Direct Non-Linear Reconstruction of Conductivities in 3D	Abstracts p. 191

Special Session 49	Complexity of Geometry and Analysis of Larger Scale Dynamical Systems Organized by: Henk Broer, Carles Simo, Renato Vitolo, Gert Vegter	Location HSZ 304
10:45-11:15	Dmitry Turaev (Imperial College, England) On Stickiness and Flicker-Noise	Abstracts p. 214
11:15-11:45	Alef Sterk (Johann Bernoulli Inst., Groningen, Netherlands) The Dynamics of a Low-Order Model for the Atlantic Multidecadal Oscillation	Abstracts p. 213

Special Session 50	Positive Systems Organized by: Tobias Damm , Anke Kalauch	Location WIL C107
10:45-11:15	Oliver Mason (National University of Ireland Maynooth, Ireland) Monotonicity and Riccati Differential Equations on Euclidean Jordan Algebras	Abstracts p. 216
11:15-11:45	Bas Lemmens (University of Kent, England) Stability and Convergence in Discrete Convex Monotone Dynamical Systems	Abstracts p. 216
11:45-12:15	Tobias Damm (TU Kaiserslautern, Germany) On Lyapunov Operators and Their Positivity Properties	Abstracts p. 215

Special Session 52	Singular Perturbations Organized by: Freddy Dumortier, Peter De Maesschalck, Martin Wechselberger	Location HSZ 403
10:45-11:15	Eric Benoît (Université de La Rochelle, France) Bifurcation Delay -- the Case of the Sequence: Stable Focus -- Unstable Focus -- Unstable Node	Abstracts p. 222
11:15-11:45	Yulij Ilyashenko (Moscow Universities, Cornell University, Russia) Limit Cycles of Singularly Perturbed Quadratic Vector Fields	Abstracts p. 224

Special Session 57	Hyperbolic Dynamics and Smooth Ergodic Theory Organized by: Eugen Mihailescu, Bernd Stratmann	Location HSZ 301
10:45-11:15	Martina Zaehe (University of Jena, Germany) Local and Global Curvatures of Self-Similar Random Fractals	Abstracts p. 243
11:15-11:45	Nicolai Haydn (University of Southern California, USA) Return Times Distribution for α-Mixing Dynamical Systems	Abstracts p. 241
11:45-12:15	Roland Zweimüller (University of Vienna, Austria) Return- and Hitting Time Statistics for Null-Recurrent Dynamical Systems	Abstracts p. 243

Special Session 60	Deterministic and Stochastic Dynamical Systems and Applications Organized by: Tomas Caraballo, Jose Valero	Location GER 052
10:45-11:15	Maria Garrido-Atienza (University of Sevilla, Spain) On Random Dynamical Systems and Fractional Brownian Motions	Abstracts p. 252
11:15-11:45	Thomas Lorenz (Goethe University, Frankfurt am Main, Germany) Birth-And-Growth Processes for Nonconvex Random Closed Sets	Abstracts p. 252
11:45-12:15	Sylvia Novo (Universidad de Valladolid, Spain) Exponential Ordering for Nonautonomous Neutral Functional Differential Equations with Applications to Compartmental Systems	Abstracts p. 253

Special Session 63	Nonlinear Evolution Equations and Related Topics Organized by: Mitsuharu Otani, Tohru Ozawa	Location POT 112
10:45-11:15	Tatsuya Watanabe (Kyoto Sangyo University, Japan) G-Invariant Positive Solutions for a Quasilinear Schrödinger Equation	Abstracts p. 268
11:15-11:45	Guillaume Warnault (Université de Tours, France) Stable Solutions for Semilinear Elliptic PDEs Involving the Biharmonic Operator	Abstracts p. 267

Special Session 64	Variational Methods for Non-Smooth Functions and Applications Organized by: Salvatore A. Marano, Siegfried Carl, Dumitru Motreanu	Location POT 361
10:45-11:15	Dumitru Motreanu (University of Perpignan, France) Multiple Solutions with Sign Information for Elliptic Equations and Systems	Abstracts p. 271
11:15-11:45	Siegfried Carl (University of Halle, Germany) Sub-Supersolution Method for Nonsmooth Variational Problems	Abstracts p. 269

Special Session 70	Structure and Dynamics of Biochemical Reaction Networks Organized by: Maya Mincheva, Maria Conceicao	Location WIL B321
10:45-11:15	Maria Leite (University of Oklahoma, USA) Dynamics of Coupled Feedback Loops: Multistability, Oscillations, and Bifurcations	Abstracts p. 286
11:15-11:45	Martin Golubitsky (MBI / Ohio State University, USA) Periodic Forcing of Systems Near Hopf Bifurcation	Abstracts p. 285
11:45-12:15	Nikita Agarwal (University of Houston, USA) Strongly Connected Inflation of Coupled Cell Networks	Abstracts p. 284

Contributed Session 02	ODEs and Applications	Location WIL A124
10:45-11:05	Adnan Sabuwala (California State University, Fresno, USA) Particular Solution to the Euler-Cauchy Equation with Polynomial Non-Homogeneities	Abstract p. 297
11:05-11:25	Aliasghar Jodayree Akbarfam (Tabriz University, Iran) On the Infinite Product Representation of the Solution of Sturm-Liouville Equation with Dirichlet-Neumann Condition	Abstract p. 295
11:25-11:45	Andrzej Fryszkowski (Warsaw University of Technology, Poland) Pointwise Estimates for Retractions on the Solution Set to Lipschitz Differential Inclusions	Abstract p. 293

Contributed Session 05	Stability	Location HSZ 405
10:45-11:05	Andrejs Reinfelds (University of Latvia, Riga, Latvia) Reduction Principle in the Theory of Stability for Strongly Nonlinear Equations	Abstract p. 305
11:05-11:25	Behrouz Ebrahimi (Aerospace Research Institute, Iran) Internal Dynamics Stabilization of Nonlinear Non-Minimum Phase Supersonic Flight Vehicle	Abstract p. 304
11:25-11:45	Irada Dzhalladova (Kyiv National Economical University, Ukraine) Investigation of Problem Stability of Solutions of Stochastic Dynamic Equations	Abstract p. 304

Contributed Session 09	PDEs and Applications	Location WIL C133
10:45-11:05	Alexei Filinovskiy (Moscow State Technical University, Russia) Discrete and Continuous Spectra of Singular Elliptic Operators	Abstract p. 317
11:05-11:25	Kelly Patricia Murillo (University of Aveiro, Portugal) Two Nontrivial Solutions of a Class of Elliptic Equation with Singular Term	Abstract p. 321
11:25-11:45	Mohamed Ben Rhouma (SQU-Oman, Oman) One May Hear the Shape of a Drum	Abstract p. 315

Contributed Session 10	Bifurcation and Chaotic Dynamics	Location WIL C129
10:45-11:05	Albert Granados (Universität Stuttgart, Germany) Big Bang Bifurcations in Contracting Increasing-Decreasing Maps with a Discontinuity at the Origin: The Period Increment Scenario	Abstract p. 328
11:05-11:25	Alexandre Rodrigues (Oporto University, Portugal) Dynamics Near Heteroclinic Networks of Rotating Nodes	Abstract p. 329
11:25-11:45	Barnabas Garay (Pazmany University, Budapest, Hungary) Two Applications of Set-Valued Dynamics for Chaos	Abstract p. 328

Lunch break	Mensa Bergstraße
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Tuesday, May 25**P.M. (1)****Sessions**

Special Session 04	Mathematical Analysis of PDE Models in Materials Science Organized by: Toyohiko Aiki, Nobuyuki Kenmochi, Adrian Muntean	Location POT 006
14:00-14:30	Sören Dobberschütz (University of Bremen, Germany) A Transformation Approach for the Derivation of Boundary Conditions at Curved Porous-Liquid Interfaces	Abstracts p. 28
14:30-15:00	Gabriele Witterstein (TU München, Germany) Compressible Phase Change Flows and Their Sharp Interface Limit	Abstracts p. 31
15:00-15:30	Takeshi Fukao (Kyoto University of Education, Japan) Obstacle Problem of Navier-Stokes Equations in Thermohydraulics	Abstracts p. 28

Special Session 05	Qualitative Behavior of Dissipative Dynamical Systems Organized by: Alain Miranville, Maurizio Grasselli	Location GER 037
13:30-14:00	Vittorino Pata (Politecnico di Milano, Italy) Exponential Stability in Linear Viscoelasticity with Almost Flat Memory Kernels	Abstracts p. 35
14:00-14:30	Stefania Gatti (Università di Modena e Reggio Emilia, Italy) Continuous Families of Exponential Attractors for Singularly Perturbed Equations with Memory	
14:30-15:00	Monica Conti (Politecnico di Milano, Italy) On the Memory Relaxation of the Cahn-Hilliard Equation	Abstracts p. 33
15:00-15:30	Elsa Marchini (Politecnico di Milano, Italy) Approximating Infinite Delay with Finite Delay	Abstracts p. 34

Special Session 10	Delay Differential Equations Organized by: Hans-Otto Walther, Bernhard Lani-Wayda	Location HSZ E05
14:00-14:30	Fatihcan Atay (Max Planck Inst. for Math. in the Sci., Germany) Distributed Versus Discrete Delays in the Stability of Delay Differential Equations	Abstracts p. 49
14:30-15:00	Gábor Kiss (University of Bristol, England) Stability and Dynamics Influenced by Delay Distribution	Abstracts p. 51
15:00-15:30	Anatoli Ivanov (Pennsylvania State University, USA) Global Stability and Optimal Control in a Differential Delay Model	Abstracts p. 50

 Tuesday,
May 25, 2010

Special Session 12	Nonautonomous Dynamics Organized by: Russell Johnson, Arno Berger, Sylvia Novo	Location HSZ E03
13:30-14:00	Rafael Obaya (University of Valladolid, Spain) Dynamical Theory for Monotone Neutral Functional Differential Equations with Nonautonomous Linear D-Operator	Abstracts p. 61
14:00-14:30	Dinh Cong Nguyen (Vietnam Academy of Sci. & Tech., Vietnam) Coincidence of Lyapunov Exponents and Central Exponents of Linear Ito Stochastic Differential Equations with Nondegenerate Stochastic Term	Abstracts p. 61
14:30-15:00	Fritz Colonius (University of Augsburg, Germany) Entropy-Like Concepts for Deterministic Control Systems	Abstracts p. 60
15:00-15:30	Luca Zampogni (Universita di Perugia, Italy) The Liouville Transform and the Connection between the K-dV and the Camassa-Holm Hierarchies	Abstracts p. 63

Special Session 13	Stability of Partial Differential Equations and Evolution Equations Organized by: Yuri Latushkin, Roland Schnaubelt	Location POT 251
14:00-14:30	Fatiha Alabau-Boussouira (Metz Univ. and INRIA t. p. CORIDA, France) Stabilization and Energy Decay Rates of Memory Damped PDE's	Abstracts p. 63
14:30-15:00	Ralph Chill (Universite de Metz, France) Decay of Orbits of Bounded C_0-Semigroups on Hilbert Spaces	Abstracts p. 64
15:00-15:30	Yuri Tomilov (Torun University and PAN, Warsaw, Poland) Decay of Orbits of Bounded C_0-Semigroups on Banach Spaces	Abstracts p. 65

Special Session 14	Geometric Mechanics Organized by: Manuel de Leon, Juan Pablo Ortega, Andrew Lewis	Location POT 013
13:30-14:00	Rui Loja Fernandes (Instituto Superior Tecnico, Lisbon, Portugal) The Modular Class of a Poisson Map	Abstracts p. 66
14:00-14:30	Juan Carlos Marrero (University of La Laguna, Spain) Hamiltonian Dynamics on Lie Algebroids, Unimodularity and Preservation of Volumes	Abstracts p. 67
14:30-15:00	Jan-Cees van der Meer (Technische Universiteit Eindhoven, Netherlands) Singularities of Poisson Structures and Hamiltonian Bifurcations	Abstracts p. 69
15:00-15:30	Miguel Rodriguez-Olmos (The University of Manchester, England) The Role of Isotropy in the Dynamics of Relative Equilibria for Hamiltonian and Mechanical Systems	Abstracts p. 68

Special Session 15	Magnetohydrodynamics: Mathematical Problems and Astrophysical Applications Organized by: Antonio Ferriz-Mas, Rainer Hollerbach, Manuel Nunez, Frank Stefani, Andreas Tilgner	Location HSZ 103
14:00-14:30	Juan Miralles (Universidad de Alicante, Spain) Relativistic MHD: A Full Wave Decomposition Riemann Solver	Abstracts p. 73
14:30-15:00	Jose Font (University of Valencia, Spain) MHD Simulations of Relativistic Stars	Abstracts p. 71
15:00-15:30	Dmitry Sokoloff (Moscow State University, Russia) Dynamo in Context of Riemannian Geometry: A Mathematical Tool and Cosmological Applications	Abstracts p. 74

Special Session 17	Dynamical Networks and Their Applications in Neuroscience Organized by: Yuri Maistrenko, Georgi Medvedev	Location HSZ 105
14:00-14:30	Jürgen Jost (Max Planck Inst. for Math. in the Sci., Germany) Synchronization of Coupled Dynamics	Abstracts p. 80
14:30-15:00	Vladimir Itskov (University of Nebraska-Lincoln, USA) The Geometry of Memory Patterns in Recurrent Networks	Abstracts p. 80
15:00-15:30	Georgi Medvedev (Drexel University, USA) Synchronization of Coupled Limit Cycles	Abstracts p. 81

Special Session 18	Scaling and Liouville theorems in studies of PDEs Organized by: Peter Polacik, Pavol Quittner	Location GER 039
14:00-14:30	Bei Hu (University of Notre Dame, Indiana, USA) The Application of Scaling and Liouville Theorems in Studies of Blowup Theories	Abstracts p. 84
14:30-15:00	Francois Hamel (Aix-Marseille University, France) Extinction Versus Persistence in Strong Oscillating Flows	Abstracts p. 83
15:00-15:30	Luca Rossi (University of Padova, Italy) Liouville Type Results for Linear Elliptic and Parabolic Operators	Abstracts p. 86

Special Session 23	Nonlinear Elliptic PDEs and Geometric Analysis Organized by: Wenxiong Chen, Guofang Wang	Location HSZ 201
14:00-14:30	Marco Rigoli (Università degli Studi di Milano, Italy) Spectral Radius, Index Estimates for Schrödinger Operators and Geometric Applications	Abstracts p. 104
14:30-15:00	Lavi Karp (ORT Braude College, Israel) Null Quadrature Domains and a Free Boundary Problem for the Laplacian	Abstracts p. 104

Special Session 25	Analysis, Optimization and Control of Nonlinear Partial Differential Equation Evolution Systems Organized by: George Avalos, Lorena Bociu	Location HSZ 401
13:30-14:00	Maurizio Grasselli (Politecnico di Milano, Italy) Cahn-Hilliard Equations with Inertial Term	Abstracts p. 113
14:00-14:30	Francesca Bucci (Università degli Studi di Firenze, Italy) On the LQ-Problem for Composite Systems of Evolutionary PDEs with Boundary Control	Abstracts p. 112
14:30-15:00	Jean-Paul Zolesio (CNRS & INRIA, France) Eulerian Image Metrics Involving Monotone Rearrangement	Abstracts p. 115
15:00-15:30	Günter Leugering (University of Erlangen-Nuremberg, Germany) Control of Crack Growth in Brittle Materials with Inclusions	Abstracts p. 114

Special Session 29	Applied Analysis and Dynamics in Engineering and Sciences Organized by: Thomas C. Hagen, Janos Turi	Location HSZ 204
14:00-14:30	Constance Schober (University of Central Florida, USA) Rogue Waves, Dissipation, and Downshifting	Abstracts p. 131
14:30-15:00	Annalisa Calini (College of Charleston, USA) A Study of Stability of Rogue Wave Solutions of the Nonlinear Schrödinger Equation	Abstracts p. 127
15:00-15:30	Laurent Mertz (Université Pierre et Marie Curie, Paris VI, France) An Ultra Weak Finite Element Method as an Alternative to a Monte Carlo for an Elasto-Plastic Problem with Noise	Abstracts p. 131

Special Session 30	Lagrangian Coherent Structures and Invariant Manifolds: Analysis and Applications Organized by: George Haller, Wenbo Tang	Location POT 151
14:00-14:30	Pierre Lermusiaux (MIT, USA) Uncertainty and Multiple Scales in Oceanic Lagrangian Coherent Structures	Abstracts p. 133
14:30-15:00	Francesco d'Ovidio (Inst. of Complex Systems (ISC-PIF), Paris, France) From Stratospheric Winds to Plankton Ecology: Geophysical Transport and Mixing from Lyapunov Exponents and Vectors	Abstracts p. 134
15:00-15:30	Wenbo Tang (Arizona State University, USA) (given by G. Haller) Lagrangian Coherent Structure Extraction in Finite Domains	Abstracts p. 134

Special Session 31	Emergence and Dynamics of Patterns in Nonlinear Partial Differential Equations from Mathematical Science Organized by: Danielle Hilhorst, Yoshihisa Morita, Kunimochi Sakamoto	Location GER 054
13:30-14:00	Vitaly Volpert (CNRS, University Lyon 1, France) Nonlocal Reaction-Diffusion Equations in Population Dynamics	Abstracts p. 139
14:00-14:30	Masaharu Taniguchi (Tokyo Institute of Technology, Japan) Asymptotic Behaviors of Solutions in Multistable Reaction-Diffusion Equations	Abstracts p. 139
14:30-15:00	Hartmut Schwetlick (University of Bath, England) Emergence of Dissipation in the Dynamics of Elastic Phase Transitions -- Travelling Waves in Lattice Models	Abstracts p. 139
15:00-15:30	Jong-Shenq Guo (National Taiwan Normal University, Taiwan) Traveling Waves of Two-Component Reaction-Diffusion Systems Arising from Higher Order Autocatalytic Models	Abstracts p. 135

Special Session 35	Geometric and Singular Analysis Organized by: Gerardo Mendoza, Michael Ruzhansky, B.-Wolfgang Schulze	Location WIL A221
13:30-14:30	Tomio Umeda (University of Hyogo, Japan) Threshold Eigenfunctions and Threshold Resonances of Some Quantum Hamiltonians	Abstracts p. 152
14:30-15:30	Gohar Harutyunyan (University Oldenburg, Germany) Explicit Green Operators for Quantum Mechanical Hamiltonians	Abstracts p. 151

Special Session 39	Mathematical Cancer Modelling Organized by: Thomas Hillen, Urszula Ledzewicz, Arnaud Chauviere	Location WIL A120
13:30-14:00	Alberto d'Onofrio (European institute of Oncology, Italy) Modelling the Evasion of Tumours from Immune Control	Abstracts p. 171
14:00-14:30	Mary Ann Horn (National Science Found. & Vanderbilt Univ., USA) Understanding the Role of Diacylglycerol (DAG) as a Second Messenger	Abstracts p. 168
14:30-15:00	Florian Lamprecht (DKFZ Heidelberg, Germany) Modeling the p53-Mdm2 Core Module in Neuroblastoma	Abstracts p. 168
15:00-15:30	Peter Hinow (University of Wisconsin - Milwaukee, USA) A Continuous Model for Microtubule Dynamics with Catastrophe, Rescue and Nucleation Processes	Abstracts p. 168

Special Session 42	Interface Problems Organized by: Gunduz Caginalp, James Glimm, Alain Miranville	Location GER 038
14:00-14:30	Peter Knabner (University Erlangen-Nuremberg, Germany) Colloidal and Fluid Dynamics in Porous Media Including Electrostatic Interaction	Abstracts p. 182
14:30-15:00	Peter Galenko (German Aerospace Center (DLR), Germany) Diffuse-Interface Model for Fast Phase Transitions	Abstracts p. 181
15:00-15:30	Roderick Melnik (Wilfrid Laurier University, Waterloo, Canada) Coupled PDEs and Bandstructure Calculations in Quantum Dots	Abstracts p. 183

Special Session 44	Inverse Problems Organized by: Lassi Paivarinta, Gunther Uhlmann	Location GER 007
14:00-14:30	Davide Guidetti (University of Bologna, Italy) Partial Reconstruction of a Source Term in a Parabolic Problem	Abstracts p. 189
14:30-15:00	Armin Lechleiter (INRIA Saclay / CMAP Ecole Polytechn., France) Linear Sampling for Inverse Problems in the Time Domain	Abstracts p. 192
15:00-15:30	Samuli Siltanen (University of Helsinki, Finland) Regularized D-Bar Method for the Inverse Conductivity Problem	Abstracts p. 192

Special Session 49	Complexity of Geometry and Analysis of Larger Scale Dynamical Systems Organized by: Henk Broer, Carles Simo, Renato Vitolo, Gert Vegter	Location HSZ 304
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14:00-14:30	Juan Sanchez Umbria (Universitat Politècnica de Catalunya, Spain) Computation of Periodic Orbits and Invariant Tori, in Large-Scale Dissipative Systems, by Newton-Krylov Methods	Abstracts p. 213
14:30-15:00	Dirk Lebiedz (University of Freiburg, Germany) A Variational Principle for Model Reduction in Chemical Kinetics: Computing Slow Invariant Manifolds Via Numerical Optimization	Abstracts p. 212
15:00-15:30	Dolors Puigjaner (Universitat Rovira i Virgili, Tarragona, Spain) Existence of Chaotic Dynamics in Rayleigh-Bénard at Moderate Rayleigh Numbers	Abstracts p. 212

Special Session 50	Positive Systems Organized by: Tobias Damm, Anke Kalauch	Location WIL C107
14:00-14:30	Alexey Mazko (Institute of Mathematics of NAS of Ukraine) Positivity, Robust Stability and Comparison of Dynamic Systems	Abstracts p. 216
14:30-15:00	Onno van Gaans (Leiden University, Netherlands) Periods of Order-Preserving Nonexpansive Maps on Strictly Convex Normed Spaces	Abstracts p. 218
15:00-15:30	Peter Takac (Universität Rostock, Germany) Analyticity of Weak Solutions to Linear Parabolic Systems and a Model in Finance	Abstracts p. 217

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13:30-14:00	Robert Roussarie (University of Burgundy, France) Liénard Equations and Slow-Fast Systems	Abstracts p. 226
14:00-14:30	Freddy Dumortier (Hasselt University, Belgium) Slow-Fast Bogdanov-Takens Bifurcations	Abstracts p. 223
14:30-15:00	Peter De Maesschalck (Hasselt University, Belgium) Detectable Canard Cycles with Singular Slow Dynamics of Any Order at the Turning Point	Abstracts p. 223
15:00-15:30	Stephen Schecter (North Carolina State University, USA) Heteroclinic Orbits in Slow-Fast Hamiltonian Systems with Slow Manifold Bifurcations	Abstracts p. 226

Special Session 57	Hyperbolic Dynamics and Smooth Ergodic Theory Organized by: Eugen Mihailescu, Bernd Stratmann	Location HSZ 301
14:00-14:30	Bernd Stratmann (University of Bremen, Germany) Strong Renewal Theorems and Lyapunov Spectra for α-Farey-Lueroth and α-Lueroth Systems	Abstracts p. 243
14:30-15:00	Pekka Tukia (University of Helsinki, Finland) Myrberg Points and Ergodicity of Geodesic Flow	Abstracts p. 243
15:00-15:30	Mark Demers (Fairfield University, USA) Variational Principles for Dynamical Systems with Holes	Abstracts p. 241

Special Session 60	Deterministic and Stochastic Dynamical Systems and Applications Organized by: Tomas Caraballo, Jose Valero	Location GER 052
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14:30-15:00	James Robinson (University of Warwick, England) Finite-Dimensional Dynamics and Slices of the Unit Cube in $\mathbb{R}^n$	Abstracts p. 254
15:00-15:30	Alexandre Carvalho (Universidade de São Paulo, Brazil) Stability of Gradient Semigroups under Perturbations	Abstracts p. 252

Special Session 63	Nonlinear Evolution Equations and Related Topics Organized by: Mitsuharu Otani, Tohru Ozawa	Location POT 112
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14:00-14:30	Takahiro Hashimoto (Japan Meteorological Agency, Japan) Nonexistence of Weak Solutions of Quasilinear Elliptic Equations with Homogeneous Coefficients in Exterior Domains	Abstracts p. 265
14:30-15:00	Mokhtar Kirane (University of La Rochelle, France) On a Certain Nonlinear Nonlocal in Space Evolution Equation with Temporally Nonlocal Nonlinearity	Abstracts p. 266
15:00-15:30	Noriaki Yamazaki (Kanagawa University, Japan) Global Attractor of a Phase-Field Model of Grain Boundary Motion with Constraint	Abstracts p. 268

Special Session 64	Variational Methods for Non-Smooth Functions and Applications Organized by: Salvatore A. Marano, Siegfried Carl, Dumitru Motreanu	Location POT 361
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14:00-14:30	Gabriele Bonanno (University of Messina, Italy) A Local Minimum Theorem for Differentiable Functions Via Non-Smooth Variational Methods	Abstracts p. 269
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14:30-14:50	Inna Basak Gancheva (Spain) Separation of Variables and Explicit Theta-Function Solution of the Classical Steclov-Lyapunov Systems: A Geometric and Algebraic Geometric Background	Abstract p. 291

14:50-15:10	Joao Lopes Dias (Universidade Tecnica de Lisboa, Portugal) Generic Properties of 4-Dimensional Hamiltonian Dynamical Systems	Abstract p. 292
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14:10-14:30	Felix Sadyrbaev (LU MII and Daugavpils University, Latvia) Properties of a Nonlinear Asymmetric Oscillator with Description of Spectra	Abstract p. 297
14:30-14:50	Grzegorz Bartuzel (Warsaw University of Technology, Poland) Matrix Sturm-Liouville Problems with Applications to the Beam Differential Equations	Abstract p. 293
14:50-15:10	Imran Naeem (Lahore University of Management Sc., Pakistan) Noether, Partial Noether Operators and First Integrals for Two Linearly Coupled Nonlinear Duffing Oscillators	Abstract p. 296
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14:10-14:30	Volker Reitmann (St. Petersburg State University, Russia) Frequency-Domain Conditions for Convergence to the Stationary Set in Coupled PDEs	Abstract p. 305

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13:50-14:10	Qiaolin He (University of Science and Technology, Hong Kong) Numerical Solution of Linear Elliptic Problems with Robin Boundary Conditions by a Least-Squares/Fictitious Domain Method	Abstract p. 310
14:10-14:30	Ulises Velasco (Cinvestav-Queretaro, Mexico) Eigenvalue Problems for the Zakharov-Shabat System Using Spectral Parameter Power Series	Abstract p. 312
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13:50-14:10	Patrick Shipman (Colorado State University, USA) Diffusion to Capture: A Common Framework for a Set of Pattern-Forming Systems	Abstract p. 325
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14:50-15:10	Mikko Stenlund (Courant Institute and University of Helsinki, USA) A Pair Correlation Bound Implies the Central Limit Theorem for Sinai Billiards	Abstract p. 329
15:10-15:30	Pau Rabassa (Universitat de Barcelona, Spain) Universality and Renormalization of Quasiperiodically Forced One Dimensional Maps	Abstract p. 329

Coffee break	
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17:00-17:30	Wael Bahoun (Loughborough University, England) SRB Measures for Certain Markov Processes	Abstracts p. 19
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Special Session 04	Mathematical Analysis of PDE Models in Materials Science Organized by: Toyohiko Aiki, Nobuyuki Kenmochi, Adrian Muntean	Location POT 006
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17:00-17:30	Toyohiko Aiki (Gifu University, Japan) On Global Existence of a Weak Solution to a Mathematical Model for a Valve Made of a Spring of a Shape Memory Alloy	Abstracts p. 28
17:30-18:00	Jana Kopfová (Silesian University in Opava, Czech Republic) Temperature Dependent Preisach Hysteresis Model	Abstracts p. 29

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16:30-17:00	Hana Petzeltova (Academy of Sciences, Prague, Czech Republic) Regularity and Long Time Behavior of a Nonlocal Phase Separation System	Abstracts p. 35
17:00-17:30	Ralph Chill (Universite de Metz, France) Some Recent Applications of the Łojasiewicz-Simon Gradient Inequality	Abstracts p. 33
17:30-18:00	Morgan Pierre (University of Poitiers, France) A Numerical Analysis of the Cahn-Hilliard Equation with Inertial Term	Abstracts p. 35
18:00-18:30	Eleonora Pinto de Moura (University of Warwick, England) Orthogonal Sequences and Regularity of Embeddings into Finite-Dimensional Spaces	Abstracts p. 35
18:30-19:00	Ken Shirakawa (Kobe University, Japan) 3D-2D Asymptotic Observation for Minimization Problems Associated with Degenerative Energy-Coefficients	Abstracts p. 36

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16:30-17:00	Eduardo Liz (Universidad de Vigo, Spain) Effects of Harvesting in a Delayed Population Model	Abstracts p. 51
17:00-17:30	Mihály Pituk (University of Pannonia, Hungary) Nonnegative Solutions of Delay Differential Equations	Abstracts p. 51
17:30-18:00	Daniel Stoffer (ETH-Zürich, Switzerland) Existence of Many Stable Rapidly Oscillating Periodic Solutions of DDEs	Abstracts p. 300

Special Session 12	Nonautonomous Dynamics Organized by: Russell Johnson, Arno Berger, Sylvia Novo	Location HSZ E03
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16:30-17:00	Xiaopeng Chen (Huazhong University, Peoples Rep. of China) State Space Decomposition for Nonautonomous Dynamical Systems	Abstracts p. 59
17:00-17:30	Eyal Ron (Free University, Berlin, Germany) Dynamical Systems Approach to a Uniqueness Problem of a Nonautonomous Planar System	Abstracts p. 62
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Special Session 13	Stability of Partial Differential Equations and Evolution Equations Organized by: Yuri Latushkin, Roland Schnaubelt	Location POT 251
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16:30-17:00	Aaron Hoffman (Boston University, USA) Asymptotic Stability in the Energy Space for Multi-Soliton Solutions in the Toda Lattice	Abstracts p. 64
17:00-17:30	Martin Meyries (Karlsruhe Institute of Technology, Germany) On Parabolic Systems with Nonlinear Dynamic Boundary Conditions	Abstracts p. 65
17:30-18:00	Henrik Kalisch (University of Bergen, Norway) Stability and Interactions of BBM Solitary Waves	Abstracts p. 64

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17:00-17:30	Jürgen Scheurle (Technical University of Munich, Germany) On a Coulomb Three-Body System	Abstracts p. 68
17:30-18:00	Bavo Langerock (St-Lucas School of Architecture, Belgium) Routh Reduction for Quasi-Invariant Lagrangians	Abstracts p. 67

Special Session 15	Magnetohydrodynamics: Mathematical Problems and Astrophysical Applications Organized by: Antonio Ferriz-Mas, Rainer Hollerbach, Manuel Nunez, Frank Stefani, Andreas Tilgner	Location HSZ 103
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17:30-18:00	Antonio Ferriz-Mas (Universidad de Vigo and IAA/CSIC, Spain) On Some Conservation Theorems for Vorticity and for the Magnetic Field	Abstracts p. 70

Special Session 17	Dynamical Networks and Their Applications in Neuroscience Organized by: Yuri Maistrenko, Georgi Medvedev	Location HSZ 105
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16:30-17:00	Marc Timme (Max Planck Inst. Dynamics & Self-Org., Germany) Neural Network Design as an Inverse Problem: Spatio-Temporal Patterns and Beyond	Abstracts p. 81
17:00-17:30	Serhiy Yanchuk (Humboldt University of Berlin, Germany) Emergence of Patterns in Rings of Delayed Coupled Oscillators	Abstracts p. 82

Special Session 18	Scaling and Liouville theorems in studies of PDEs Organized by: Peter Polacik, Pavol Quittner	Location GER 039
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16:30-17:00	Yihong Du (University of New England, Australia) An Elliptic Equation with Negative Exponent: Stability and Critical Power	Abstracts p. 83
17:00-17:30	Wolfgang Reichel (Karlsruhe Institute of Technology (KIT), Germany) Liouville Theorems and A-Priori Bounds for Nonlinear Second-Order Finite Difference Equations	Abstracts p. 85
17:30-18:00	Peter Polacik (University of Minnesota, USA) Symmetry and Monotonicity Properties of Nonnegative Solutions of Elliptic Equation on Smooth Domains	Abstracts p. 85

Special Session 19	Quasilinear Degenerate and Singular Elliptic and Parabolic Problems Organized by: Peter Takac, Ratnasingham Shivaji	Location WIL A317
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17:00-17:30	Jesus Hernandez (Universidad Autonoma de Madrid, Spain) Positive Solutions to Some Singular Quasilinear Elliptic Systems	Abstracts p. 88
17:30-18:00	Paul Schmidt (Auburn University, USA) Polyharmonic PDEs and ODE Dynamics	Abstracts p. 90

Special Session 23	Nonlinear Elliptic PDEs and Geometric Analysis Organized by: Wenxiong Chen, Guofang Wang	Location HSZ 201
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16:30-17:00	Kyril Tintarev (Uppsala University, Sweden) Is the Trudinger-Moser Nonlinearity a True Critical Nonlinearity?	Abstracts p. 105
17:00-17:30	Fengquan Li (Dalian University of Technology, PR China) On a Nonlocal Elliptic Problem Arising in the Confinement of a Plasma in a Current Carrying Stellarator	Abstracts p. 104
17:30-18:00	Guofang Wang (Freiburg University, Germany) A Nonlocal Model for Image Processing	Abstracts p. 105

Special Session 25	Analysis, Optimization and Control of Nonlinear Partial Differential Equation Evolution Systems Organized by: George Avalos, Lorena Bociu	Location HSZ 401
16:00-16:30	Piermarco Cannarsa (University of Rome "Tor Vergata", Italy) Multiplicative Controllability for Reaction-Diffusion Equations with Target States Admitting Finitely Many Changes of Sign	Abstracts p. 112
16:30-17:00	Marié Grobbelaar (University of the Witwatersrand, So Africa) Stabilization of a Structural Acoustic Model with Interface a Reissner-Mindlin Plate with Second Sound	Abstracts p. 113
17:00-17:30	Daniela Sforza (Sapienza Università di Roma, Italy) Observability and Reachability for Evolution Equations with Memory	Abstracts p. 115

Special Session 29	Applied Analysis and Dynamics in Engineering and Sciences Organized by: Thomas C. Hagen, Janos Turi	Location HSZ 204
16:00-16:30	George Avalos (University of Nebraska-Lincoln, USA) On Stability and Trace Regularity of Solutions to Reissner-Mindlin-Timoshenko Equations	Abstracts p. 127
16:30-17:00	Marian Bocea (NDSU, USA) Power-Law Asymptotics and Applications to Polycrystal Plasticity	Abstracts p. 127
17:00-17:30	Joshua Du (Kennesaw State University, USA) The Dispersion Relations of Kevin-Helmholtz Instability Wave of Supersonic N Jets ($N > 3$)	Abstracts p. 128

Special Session 30	Lagrangian Coherent Structures and Invariant Manifolds: Analysis and Applications Organized by: George Haller, Wenbo Tang	Location POT 151
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16:30-17:00	Ronald Peikert (ETH Zurich, Switzerland) Lagrangian Coherent Structures in Scientific Visualization	Abstracts p. 133

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Special Session 31	Emergence and Dynamics of Patterns in Nonlinear Partial Differential Equations from Mathematical Science Organized by: Danielle Hilhorst, Yoshihisa Morita, Kunimochi Sakamoto	Location GER 054
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17:00-17:30	Hideo Ikeda (University of Toyama, Japan) Traveling Front Dynamics in Some Heterogeneous Diffusive Media	Abstracts p. 136
17:30-18:00	Yoshihisa Morita (Ryukoku University, Japan) Stability and Bifurcation of Solutions to a Mass-Conserved Reaction-Diffusion System	Abstracts p. 137

Special Session 35	Geometric and Singular Analysis Organized by: Gerardo Mendoza, Michael Ruzhansky, B.-Wolfgang Schulze	Location WIL A221
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Special Session 39	Mathematical Cancer Modelling Organized by: Thomas Hillen, Urszula Ledzewicz, Arnaud Chauviere	Location WIL A120
16:00-16:30	Haralampos Hatzikirou (UT Houston, USA) Unraveling the Mechanisms of Glioma Tumor Invasion	Abstracts p. 167
16:30-17:00	Eugene Kashdan (Tel Aviv University, Israel) A Mathematical Model of Bladder-Urothelium Carcinogen Penetration as an Initial Stage of Bladder Cancer Development	Abstracts p. 168
17:00-17:30	Monika Piotrowska (University of Warsaw, Poland) The Bifurcation Analysis of Family of Angiogenesis Models with Discrete Delay(s)	Abstracts p. 170

Special Session 42	Interface Problems Organized by: Gunduz Caginalp, James Glimm, Alain Miranville	Location GER 038
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16:30-17:00	Tycho van Noorden (Eindhoven University of Technology, Netherlands) Phase Field Approximation of a Kinetic Moving-Boundary Problem Modelling Dissolution and Precipitation	Abstracts p. 184
17:00-17:30	Giulio Schimperia (University of Pavia, Italy) A Nonisothermal Model for Nematic Liquid Crystals	Abstracts p. 183
17:30-18:00	Alain Miranville (Université de Poitiers, France) Some Generalizations of the Caginalp Phase-Field System	Abstracts p. 183

Special Session 44	Inverse Problems Organized by: Lassi Paivarinta, Gunther Uhlmann	Location GER 007
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16:30-17:00	Elena Beretta (Università "La Sapienza" Roma, Italy) Reconstruction of Small Perturbations of an Elastic Inclusion from Spectral Measurements	Abstracts p. 189
17:00-17:30	Valeriy Serov (University of Oulu, Finland) Borg-Levinson Theorem for Magnetic Schrödinger Operator	Abstracts p. 192
17:30-18:00	Yaroslav Kurylev (UCL, London, England) Collapsing Riemannian Manifolds and Stability of Inverse Spectral Problems	Abstracts p. 191

Special Session 49	Complexity of Geometry and Analysis of Larger Scale Dynamical Systems Organized by: Henk Broer, Carles Simo, Renato Vitolo, Gert Vegter	Location HSZ 304
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16:30-17:00	Henk Broer (Johann Bernoulli Inst., Groningen, Netherlands) On Parametrized KAM Theory	Abstracts p. 212

Special Session 50	Positive Systems Organized by: Tobias Damm, Anke Kalauch	Location WIL C107
16:00-16:30	Ulrich Krause (Universität Bremen, Germany) Swarms of Birds and Positive Dynamical Systems	Abstracts p. 216
16:30-17:00	Begoña Cantó Colomina (University Politechnic of Valencia, Spain) The Problem of Global Identifiability for Systems with Tridiagonal Matrices	Abstracts p. 214
17:00-17:30	Arkady Kitover (Community College of Philadelphia, USA) Positive Operators with No Nontrivial Invariant Sublattices	Abstracts p. 216
17:30-18:00	Alexander Mekler (S.-Petersburg Math. Society, Russia, Germany) Integer Interpretations of Some Topological Invariants of Classical Orlicz and Marcinkiewicz Spaces	Abstracts p. 217

Special Session 52	Singular Perturbations Organized by: Freddy Dumortier, Peter De Maesschalck, Martin Wechselberger	Location HSZ 403
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16:30-17:00	Ilya Schurov (Moscow State University, Russia) Canard Cycles in Generic Slow-Fast Systems on the Two-Torus	Abstracts p. 227
17:00-17:30	Pavel Kaleda (Lomonosov Moscow State University, Russia) The Bifurcation of Slow-Fast Separatrix Loop in Singular Systems Family	Abstracts p. 224
17:30-18:00	Thomas Erneux (Universite Libre de Bruxelles, Belgium) Delay Induced Canards	Abstracts p. 223

Special Session 57	Hyperbolic Dynamics and Smooth Ergodic Theory Organized by: Eugen Mihailescu, Bernd Stratmann	Location HSZ 301
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16:30-17:00	Wael Bahsoun (Loughborough University, England) Quasi-Invariant Measures and Escape Rates	Abstracts p. 240
17:00-17:30	Kurt Falk (Universität Bremen, Germany) Kleinian Groups with Dimension Gap	Abstracts p. 241
17:30-18:00	Martial Hille (Humboldt University Berlin, Germany) Remarks on Hausdorff-Dimensions of Certain Subsets of Limit Sets for Infinitely Generated Kleinian Groups	Abstracts p. 242

Special Session 60	Deterministic and Stochastic Dynamical Systems and Applications Organized by: Tomas Caraballo, Jose Valero	Location GER 052
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16:30-17:00	Ana Sanz (University of Valladolid, Spain) Concave or Sublinear Monotone Non-Autonomous Infinite Delay Fdes	Abstracts p. 254
17:00-17:30	Jacky Cresson (University of Pau, France) Stochastic Embedding of Lagrangian Systems and Applications	Abstracts p. 252
17:30-18:00	Sergio Almada (Georgia Tech, USA) Short Time Dynamics Random Perturbations of Hyperbolic ODE	Abstracts p. 252

Special Session 63	Nonlinear Evolution Equations and Related Topics Organized by: Mitsuharu Otani, Tohru Ozawa	Location POT 112
16:00-16:30	Akisato Kubo (Fujita Health University, Japan) Nonlinear Evolution Equations Associated with Mathematical Models	Abstracts p. 266
16:30-17:00	Tohru Wakasa (Meiji University, Japan) Limiting Structure on Eigenfunctions of Linearized Eigenvalue Problems for 1-Dimensional Bistable Reaction-Diffusion Equations	Abstracts p. 267
17:00-17:30	Stefanie Sonner (Helmholtz Zentrum München, Germany) On Verifying Mathematical Models with Diffusion, Transport and Interaction	Abstracts p. 266
17:30-18:00	Sabine Eisenhofer (Helmholtz Zentrum München, Germany) Mathematical Modeling of Mitochondrial Swelling	Abstracts p. 264

Special Session 64	Variational Methods for Non-Smooth Functions and Applications Organized by: Salvatore A. Marano, Siegfried Carl, Dumitru Motreanu	Location POT 361
16:00-16:30	Pasquale Candito (Mediterranea University of Reggio Calabria, Italy) Existence and Multiplicity of Critical Point Theorems for Non-Smooth Functionals and Applications	Abstracts p. 269
16:30-17:00	Claudio Saccon (University of Pisa, Italy) Multiple Solutions of Elliptic Problems with Measure Data Via Nonsmooth Analysis	Abstracts p. 272
17:00-17:30	Raffaella Servadei (University of Calabria, Italy) A Variational Approach to Semilinear Elliptic Variational Inequalities with Dependence on the Gradient	Abstracts p. 272
17:30-18:00	Stanisław Migórski (University of Krakow, Poland) Vibrations of Simple Mechanical Systems with Nonsmooth Potentials	Abstracts p. 271

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16:00-16:30	Thilo Gross (MPI for the Physics of Complex Systems, Germany) Generalized Modeling of Biological Networks	Abstracts p. 285
16:30-17:00	Carsten Conradi (MPI Magdeburg, Germany) Switching in Mass Action Networks Based on Linear Inequalities	Abstracts p. 285
17:00-17:30	David Swigon (University of Pittsburgh, USA) Multiple Roles of Negative Feedback in Immune Response to Virus Attack	Abstracts p. 286
17:30-18:00	Markus Eiswirth (Fritz-Haber-Institut der MPG, Berlin, Germany) Chemical Dynamics and Algebraic Geometry	Abstracts p. 285

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16:20-16:40	Joanna Mason (MACSI, University of Limerick, Ireland) Classical Analysis and Discontinuity Geometry of an Impact Oscillator with Two Discontinuity Surfaces	Abstract p. 296
16:40-17:00	Khalid Alshammari (KFUPM, Saudi Arabia) Existence and Quasilinearization in Banach Spaces	Abstract p. 293
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16:20-16:40	Jordi-Lluís Figueras (Universitat de Barcelona, Spain) Rigorous Analytic Validation of Invariant Tori on the Verge of a Hyperbolicity Breakdown	Abstract p. 310
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17:00-17:20	Olena Tsviliuk (JSC Rodovid, Ukraine) FPT Problems in Modeling Complex Systems in Finance: A Monte Carlo Approach	Abstract p. 311
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11:45-12:15	Chao Xia (Albert-Ludwigs-Universität Freiburg, Germany) A Classification of the Wulff Shape by an Overdetermined Anisotropic PDE	Abstracts p. 105

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10:45-11:15	Alfonso Casal (Univ. Politecnica de Madrid, Spain) Finite Time Extinction Property in Some PDE's with Dynamic Boundary Conditions	Abstracts p. 106
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11:15-11:45	Brenton Lemesurier (College of Charleston, South Carolina, USA) Davydov-Scott Models of Wave Motion in α-Helix Protein and Exactly Energy-Momentum Conserving Discretizations for Hamiltonian Systems	Abstracts p. 129
11:45-12:15	Emmanuel Leriche (Université Jean-Monnet, Saint-Etienne, France) Numerical Investigation of Particle-Laden Thermally Driven Turbulent Flows in Enclosure	Abstracts p. 129

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10:45-11:15	Francois Hamel (Aix-Marseille University, France) Spreading Speeds of Solutions of Reaction-Diffusion Equations	Abstracts p. 136
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10:15-10:45	Francisco Morillas Jurado (Universitat de Valencia, Spain) The Kneser Property for the Discretization of Reaction-Diffusion Systems	Abstracts p. 253
10:45-11:15	Felipe Rivero (Universidad de Sevilla, Spain) Pullback attractors and PDEs	

Special Session 63	Nonlinear Evolution Equations and Related Topics Organized by: Mitsuharu Otani, Tohru Ozawa	Location POT 112
10:15-10:45	Goro Akagi (Shibaura Institute of Technology, Japan) Non-Uniqueness of Solutions for Some Doubly Nonlinear Parabolic Equations	Abstracts p. 264
10:45-11:15	Yoshitsugu Kabeya (Osaka Prefecture University, Japan) Large Time Behaviors of Hots Spots to a Heat Equation with a Potential Term	Abstracts p. 265
11:15-11:45	Kunihiko Kajitani (Tsukuba University, Japan) L^p Estimates of Solutions to Mixed Problem for Heat Equations	Abstracts p. 266

Special Session 64	Variational Methods for Non-Smooth Functions and Applications Organized by: Salvatore A. Marano, Siegfried Carl, Dumitru Motreanu	Location POT 361
10:15-10:45	Alexandru Kristaly (Babes-Bolyai University, Romania) Asymptotically Critical Problems on Higher-Dimensional Spheres	Abstracts p. 270
10:45-11:15	Patrick Winkert (TU Berlin, Germany) Local C¹-Minimizers Versus Local W^{1,p}-Minimizers of Nonsmooth Functionals	Abstracts p. 272
11:15-11:45	Francesca Faraci (University of Catania, Italy) Infinitely Many Solutions for the p-Laplacian with Non-Smooth Boundary Conditions	Abstracts p. 270

Special Session 69	Non-local Equations in Biology Organized by: Yuan Lou, Salome Martinez	Location WIL C129
10:15-10:45	Armel Andami Ovono (University of Picardie, France) About Stability Analysis for a Diffusion Equation Parameterized by Nonlocal Interactions	Abstracts p. 282
10:45-11:15	Carmen Cortazar (P. Universidad Catolica de Chile) Asymptotic Behavior for a Non-Local Diffusion Equation in an Exterior Domain	Abstracts p. 282
11:15-11:45	Chris Cosner (University of Miami, USA) Evolutionary Stability of Ideal Free Nonlocal Dispersal	Abstracts p. 282

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Special Session 70	Structure and Dynamics of Biochemical Reaction Networks Organized by: Maya Mincheva, Maria Conceicao	Location WIL B321
10:15-10:45	James Lu (Johann Radon Institute (RICAM), Austria) The Design of Oscillatory Biological Circuits Using Inverse Methods	Abstracts p. 286
10:45-11:15	Maya Mincheva (Northern Illinois University, USA) Oscillations in Biochemical Reaction Networks	Abstracts p. 286

Contributed Session 02	ODEs and Applications	Location WIL A124
10:15-10:35	Michail Markakis (University of Patras, Greece) Exact Solutions of Certain Nonlinear Autonomous Ordinary Differential Equations of the Second Order	Abstract p. 295
10:35-10:55	Maurizio Garrione (SISSA - Trieste, Italy) Double Resonance with Landesman-Lazer Conditions for Planar Systems of ODEs	Abstract p. 294
10:55-11:15	Mike Jeffrey (University of Bristol, England) Hunting Ducks and Nondeterminism in Nonsmooth Dynamics	Abstract p. 295
11:15-11:35	Neil Humphries (National University of Ireland, Galway, Ireland) Analysis of Grazing Bifurcations Within a Discontinuity-Geometry Framework	Abstract p. 295
11:35-11:55	Sergey Smirnov (Daugavpils University, Latvia) On the Third Order Three Point Nonlinear Boundary Value Problems	Abstract p. 297
11:55-12:15	Tobias Wichtrey (Universität Augsburg, Germany) Harmonic Limits of Dynamical Systems	Abstract p. 298

Contributed Session 07	Scientific Computation and Numerical Algorithms	Location WIL C205
10:15-10:35	Jan Cieřliński (University of Białystok, Poland) Improving the Accuracy of Geometric Numerical Schemes for Ordinary Differential Equations	Abstract p. 309
10:35-10:55	Alvaro Alvarez-Parrilla (Universidad Autónoma de Baja California, Mexico) Visualization of Complex Analytic Vector Fields	Abstract p. 309
10:55-11:15	Seyed Hamed Hashemi Mehneh (Aerospace Research Institute, Iran) A Numerical Method for Soft Landing on Mars	Abstract p. 310

11:15-11:35	Seyed Mohammad Hosseini (Tarbiat Modares University, Tehran, Iran) Some Results on the Stability Analysis and Strong Approximation of Parabolic SPDEs	Abstract p. 310
11:35-11:55	Kaveh Shakiba Nia (K. N. Toosi University of Technology, Tehran, Iran) A Computational Methodology for Calculation of Green's Function Matrix Operator for Representing Surface Deformations Due to Faulting with Reference to the San Andreas Fault Near Parkfield, California	Abstract p. 311
11:55-12:15	A. Mirzazadeh (Islamic Azad University, Karaj Branch, Iran) The Optimal Ordering Policy with Using Differential Equations of Inventory System Behavior under Uncertain Conditions	Abstract p. 307

Contributed Session 09	PDEs and Applications	Location WIL C133
10:15-10:35	Amer Rasheed (Inst. National des Sciences Appl., Rennes, France) Dynamics of Dendrite Growth in a Binary Alloy with Magnetic Field Effect	Abstract p. 322
10:35-10:55	Andrey Verisokin (Kursk State University, Russia) Study of Phase Clusters in a Distributed Selkov System	Abstract p. 326
10:55-11:15	Darya Verveiko (Kursk State University, Russia) Application of He's Method to the Modified Rayleigh Equation	Abstract p. 326
11:15-11:35	Elena Kopylova (Inst. for Inf. Transmission Problems RAS, Russia) On Asymptotic Stability of Kink for Relativistic Ginzburg-Landau Equation	Abstract p. 320
11:35-11:55	Janis Rimshans (Riga, Latvia) On One 2D Mathematical Model for Nondeterministic "Without Preference" Motion of Traffic Flow	Abstract p. 323
11:55-12:15	Said Mesloub (King Saud University, Saudi Arabia) On a Nonlinear Evolution Coupled System with a Non Classical Conditions	Abstract p. 321

Lunch break	Mensa Bergstraße
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Special Session 03	Dynamics of Chaotic and Complex Systems Organized by: Jose M. Amigo, Miguel A. F. Sanjuan	Location POT 051
13:30-14:00	Steffen Mihatsch (MPI Institute for Extraterrestrial Phys., Germany) Exploring a Spatio-Temporal Coupled System Using Symbolic Dynamics	Abstracts p. 24
14:00-14:30	Roberto Barrio (University of Zaragoza, Spain) Qualitative Analysis of Dissipative Systems: Rössler Equations and Numerical Tools	Abstracts p. 20
14:30-15:00	Bastien Fernandez (CNRS, France) Spatial Chaos of Traveling Waves Has a Unique Velocity	Abstracts p. 22
15:00-15:30	Francisco Balibrea (Universidad de Murcia, Spain) Chaotic Behavior Via Lyapunov Exponents	Abstracts p. 19

Special Session 04	Mathematical Analysis of PDE Models in Materials Science Organized by: Toyohiko Aiki, Nobuyuki Kenmochi, Adrian Muntean	Location POT 006
14:00-14:30	Antonios Zagaris (University of Twente, Netherlands) Enzyme Kinetics in the Presence of Diffusion	Abstracts p. 31
14:30-15:00	Risei Kano (Kinki University, Japan) The Existence of Time Global Solutions for Tumor Invasion Models with Constraints	Abstracts p. 29
15:00-15:30	Maria Neuss-Radu (University of Heidelberg, Germany) Modelling and Analysis of the Influence of Chemical Factors on the Mechanical Properties of Cellular Tissue	Abstracts p. 30

Special Session 05	Qualitative Behavior of Dissipative Dynamical Systems Organized by: Alain Miranville, Maurizio Grasselli	Location GER 037
13:30-14:00	Sergey Zelik (University of Surrey, Guildford UK, England) Strong Trajectory Attractors for the Dissipative Euler Equations	Abstracts p. 37
14:00-14:30	Alexei Ilyin (Keldysh Inst. of Appl. Math., Moscow, Russia) Lower Bounds for the Spectrum of the Stokes and Laplace Operators	Abstracts p. 34
14:30-15:00	Tomasz Dłotko (Silesian University, Katowice, Poland) Generalized Korteweg-de Vries-Burgers Equation	Abstracts p. 33
15:00-15:30	Alp Eden (Bogazici University, Turkey) On the Asymptotic Behavior of Solutions for the Cahn-Hilliard and the Convective Cahn-Hilliard Equations	Abstracts p. 33

Special Session 07	Boundary Value Problems for Differential Equations and Inclusions Organized by: Cristina Marcelli, Francesca Papalini	Location HSZ 304
14:00-14:30	Jan Andres (Palacky University, Czech Republic) On Solutions and Their Discretizations of Stepanov Almost-Periodic Differential Equations and Inclusions	Abstracts p. 40
14:30-15:00	Serena Matucci (University of Florence, Italy) Boundary Value Problems on the Half Line for Nonlinear Second Order Equations	Abstracts p. 42
15:00-15:30	Sophia Kyritsi (Hellenic Naval Academy, Greece) Positive Solutions for p-Laplacian Equations with Combined Nonlinearities	Abstracts p. 41

Special Session 08	New Trends in Mathematical Fluid Dynamics Organized by: Eduard Feireisl	Location HSZ 405
13:30-14:00	Jiri Neustupa (Academy of Sciences, Prague, Czech Republic) A Weak Solution of the Steady Navier-Stokes Equation in Domains with Non-Compact Boundaries	Abstracts p. 45
14:00-14:30	Maurizio Grasselli (Politecnico di Milano, Italy) Asymptotic Behavior of Cahn-Hilliard-Navier-Stokes Systems	Abstracts p. 43
14:30-15:00	Piotr Gwiazda (University of Warsaw, Poland) On Implicitly Constituted Incompressible Fluids	Abstracts p. 44
15:00-15:30	Renzo Ricca (University Milano-Bicocca, Italy) Vortex Dynamics Estimates by Structural Complexity Analysis	Abstracts p. 45

Special Session 10	Delay Differential Equations Organized by: Hans-Otto Walther, Bernhard Lani-Wayda	Location HSZ E05
14:00-14:30	Eugen Stumpf (University of Rostock, Germany) A Periodic Orbit for a Differential Equation with State-Dependent Delay	Abstracts p. 52
14:30-15:00	Wolfgang Ruess (Universität Duisburg-Essen, Germany) Linearized Stability for State-Dependent Delay Equations	Abstracts p. 51
15:00-15:30	Tibor Krisztin (University of Szeged, Hungary) The Period Function and Global Properties for Some Delay Differential Equations	Abstracts p. 51

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Special Session 11	New Developments in Qualitative Behavior of Nonlinear Evolutionary PDEs Organized by: Irena Lasiecka, Grozdana Todorova	Location GER 052
14:30-15:00	Herbert Amann (University of Zürich, Switzerland) Parabolic Problems on Non-Smooth Domains	Abstracts p. 53
15:00-15:30	Victor Isakov (Wichita State University, USA) Carleman Estimates with Two Large Parameters and Their Applications	Abstracts p. 55

Special Session 12	Nonautonomous Dynamics Organized by: Russell Johnson, Arno Berger, Sylvia Novo	Location HSZ E03
13:30-14:00	Tomás Caraballo (Universidad de Sevilla, Spain) Global Attractor for a Non-Autonomous Integro-Differential Equation in Materials with Memory	Abstracts p. 59
14:00-14:30	Kenneth Palmer (National Taiwan University, Taiwan) A Finite-Time Condition for Exponential Dichotomy	Abstracts p. 61
14:30-15:00	Martin Rasmussen (Imperial College London, England) Approximation of Nonautonomous Invariant Manifolds	Abstracts p. 62
15:00-15:30	Erik Van Vleck (University of Kansas, USA) On the Error in the Approximation of Evans Functions and Exponential Dichotomies	Abstracts p. 63

Special Session 14	Geometric Mechanics Organized by: Manuel de Leon, Juan Pablo Ortega, Andrew Lewis	Location POT 013
13:30-14:00	Yuri Fedorov (Politechnic University of Catalonia, Spain) Meromorphic and Hypergeometric Solutions of the Nonholonomic Suslov Problem	Abstracts p. 66
14:00-14:30	Eduardo Martínez (University of Zaragoza, Spain) Reduction in Nonholonomic Mechanics from a Variational Point of View	Abstracts p. 67
14:30-15:00	Luis Garcia Naranjo (EPFL, Switzerland) The Hydrodynamic Chaplygin Sleigh	Abstracts p. 67
15:00-15:30	Francesco Fassò (University of Padova, Italy) Noether-Like First Integrals in Nonholonomic Mechanics	Abstracts p. 66

Special Session 15	Magnetohydrodynamics: Mathematical Problems and Astrophysical Applications Organized by: Antonio Ferriz-Mas, Rainer Hollerbach, Manuel Nunez, Frank Stefani, Andreas Tilgner	Location HSZ 103
14:00-14:30	Andre Giesecke (Forschungszentrum Dresden, Germany) Dynamo Action in Heterogenous Domains	Abstracts p. 71
14:30-15:00	Agris Gailitis (Institute of Physics, University of Latvia) Mathematical Background of the Riga Dynamo Experiment	Abstracts p. 71
15:00-15:30	Rainer Hollerbach (University of Leeds, UK, England) Magnetohydrodynamic Spherical Couette Flow	Abstracts p. 72

Special Session 17	Dynamical Networks and Their Applications in Neuroscience Organized by: Yuri Maistrenko, Georgi Medvedev	Location HSZ 105
14:00-14:30	Yuri Maistrenko (National Academy of Sciences, Ukraine) Chimera States at the Transition from Coherence to Incoherence for Coupled Chaotic Oscillators	Abstracts p. 81
14:30-15:00	Lee De Ville (University of Illinois, USA) Dynamics of Neuronal Networks with Plasticity	Abstracts p. 79
15:00-15:30	Kevin Lin (University of Arizona, USA) Layered Neural Oscillator Networks and Their Reliability	Abstracts p. 80

Special Session 18	Scaling and Liouville theorems in studies of PDEs Organized by: Peter Polacik, Pavol Quittner	Location GER 039
13:30-14:00	Hatem Zaag (CNRS Université Paris 13, France) A Liouville Theorem for a Semilinear Wave Equation and Applications to the Regularity of the Blow-Up Set	Abstracts p. 86
14:00-14:30	Gabriel Koch (Oxford University, England) An Alternative Approach to Regularity for the Navier-Stokes Equations in Critical Spaces	Abstracts p. 84
14:30-15:00	Juraj Foldes (Vanderbilt University, USA) Blow-Up Rates for Solutions of Indefinite Superlinear Parabolic Problems	Abstracts p. 83
15:00-15:30	Nejla Nouailli (CEREMADE-Université Paris Dauphine, France) A Liouville Theorem for a Semilinear Heat Equation and Applications for Quenching	Abstracts p. 85

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Special Session 19	Quasilinear Degenerate and Singular Elliptic and Parabolic Problems Organized by: Peter Takac, Ratnasingham Shivaji	Location WIL A317
13:30-14:00	Lourdes Tello (Universidad Politécnica de Madrid, Spain) The Effect of the Deep Ocean on a Climate Energy Balance Model	Abstracts p. 91
14:00-14:30	Jacques Giacomoni (Université de Pau et des Pays de l'Adour, France) A Review of Results About Quasilinear and Singular Equations	Abstracts p. 88
14:30-15:00	Ian Schindler (University of Toulouse 1, France) Multiplicity for a φ-Laplacian Operator with a Conormal Boundary Condition	Abstracts p. 90
15:00-15:30	Juan Francisco Padial (Universidad Politécnica de Madrid, Spain) Existence and Estimate of the Free-Boundary for a Non Local Inverse Elliptic-Parabolic Problem	Abstracts p. 90

Special Session 23	Nonlinear Elliptic PDEs and Geometric Analysis Organized by: Wenxiong Chen, Guofang Wang	Location HSZ 201
14:00-14:30	Mohameden Ould Ahmedou (Giessen University, Germany) Constant Q-Curvature Conformal Metrics: The Critical Case	Abstracts p. 104
14:30-15:00	Anna Dall'Acqua (University Magdeburg, Germany) Willmore Surfaces of Revolution Satisfying Natural Boundary Conditions	Abstracts p. 103
15:00-15:30	Monica Lazzo (University of Bari, Italy) Nodal Properties of Radial Solutions of Polyharmonic Boundary-Value Problems	Abstracts p. 104

Special Session 24	Nonlinear Systems of Mixed Type and Applications Organized by: Zhaosheng Feng, Claire David, Tingwen Huang	Location WIL C307
13:30-14:00	Akif Ibragimov (Texas Tech. University, Lubbock, USA) Non-Linear Flows in the Porous Media: Structural Stability and Long Term Dynamics	Abstracts p. 107
14:00-14:30	Nicoleta Tarfulea (Purdue University Calumet, USA) A Mathematical Model for the Clt Effect on the Drug Resistance During Antiretroviral Treatment of HIV Infection	Abstracts p. 110
14:30-15:00	Eugenio Rocha (University of Aveiro, Portugal) The Best Constant in an Anisotropic Sobolev Inequality and Related Results	Abstracts p. 109
15:00-15:30	Long Lee (University of Wyoming, USA) A Particle Method and Numerical Study of a Quasilinear Partial Differential Equation	Abstracts p. 108

Special Session 25	Analysis, Optimization and Control of Nonlinear Partial Differential Equation Evolution Systems Organized by: George Avalos, Lorena Bociu	Location HSZ 401
13:30-14:00	Roland Schnaubelt (Karlsruhe Institute of Technology, Germany) Invariant Manifolds and Stability for the Stefan Problem with Surface Tension	Abstracts p. 114
14:00-14:30	Giles Auchmuty (University of Houston, USA) Solvability of Elliptic Problems with Immersed Interfaces	Abstracts p. 111
14:30-15:00	Roberto Triggiani (University of Virginia, USA) Min-Max of a Fluid-Structure Interaction with Control and Disturbance at the Interface	Abstracts p. 115
15:00-15:30	Marcelo Cavalcanti (State University of Maringá, Brazil) Uniform Decay Rate Estimates for the Wave Equation on Compact Surfaces and Locally Distributed Damping	Abstracts p. 112

Special Session 28	Stochastic Partial Differential Equations Organized by: Wilfried Grecksch, Bjorn Schmalfuss	Location WIL C203
13:30-14:00	Takeshi Taniguchi (Kurume University, Japan) The Existence and Asymptotic Behaviour of Energy Solutions to Stochastic 2D Functional Navier-Stokes Equations Driven by Levy Processes	Abstracts p. 126
14:00-14:30	Hakima Bessaih (University of Wyoming, USA) On Some Stochastic Shell Models of Turbulence	Abstracts p. 123
14:30-15:00	Tomás Caraballo (Universidad de Sevilla, Spain) Stabilization of Differential Inclusions and PDEs without Uniqueness by Noise	Abstracts p. 123
15:00-15:30	José Valero (Universidad Miguel Hernández, Spain) About the Navier-Stokes System with Infinite Delay	Abstracts p. 126

Special Session 29	Applied Analysis and Dynamics in Engineering and Sciences Organized by: Thomas C. Hagen, Janos Turi	Location HSZ 204
14:00-14:30	Emmanuel Leriche (Université Jean-Monnet, Saint-Etienne, France) Stokes Eigenmodes, Potential Vector -- Vorticity Correlation and Corner Vortices in Trihedral Rectangular Corner	Abstracts p. 129
14:30-15:00	Thomas Hagen (The University of Memphis, USA) Global Existence Results for Stretching of Viscous Fibers	Abstracts p. 128

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Special Session 31	Emergence and Dynamics of Patterns in Nonlinear Partial Differential Equations from Mathematical Science Organized by: Danielle Hilhorst, Yoshihisa Morita, Kunimochi Sakamoto	Location GER 054
13:30-14:00	Amy Novick-Cohen (Technion-IIT, Haifa, Israel) Upper Bounds for Coarsening for the Cahn-Hilliard Equation and Deep Quench Obstacle Problem	Abstracts p. 138
14:00-14:30	Georgia Karali (University of Crete, Greece) On the Study of a Generalized Cahn-Hilliard Equation with Forcing and Stochastic Terms	Abstracts p. 136
14:30-15:00	Hirofumi Izuhara (Université Paris-Sud 11, France) Approximation of Nonlinear Diffusion Systems by Reaction-Diffusion Systems	Abstracts p. 136
15:00-15:30	Hideki Murakawa (University of Toyama, Japan) A Relation between Reaction-Diffusion Interaction and Nonlinear Diffusion	Abstracts p. 137

Special Session 35	Geometric and Singular Analysis Organized by: Gerardo Mendoza, Michael Ruzhansky, B.-Wolfgang Schulze	Location WIL A221
13:30-14:30	Thomas Krainer (Penn State Altoona, USA) Trace Expansions for Elliptic Cone Operators	Abstracts p. 152
14:30-15:30	Juan Gil (Penn State University, Altoona, USA) On the Heat Trace Expansion for the Closure of an Elliptic Wedge Operator	Abstracts p. 151

Special Session 36	Reaction Diffusion Systems Organized by: Julian Lopez-Gomez	Location POT 151
14:00-14:30	Patrick Guidotti (University of California, Irvine, USA) Nonlinear Diffusions with Nontrivial Dynamics	Abstracts p. 155
14:30-15:00	Gieri Simonett (Vanderbilt University, USA) Qualitative Behavior of Solutions for a Thermodynamically Consistent Stefan Problem with Surface Tension	Abstracts p. 157
15:00-15:30	Santiago Cano-Casanova (Universidad Pontificia Comillas, Spain) Asymptotic Behavior at Infinity of the Positive Solutions of a Generalized Class of Thomas-Fermi Equations	Abstracts p. 153

Special Session 37	Nonlinear Evolution Equations of Mathematical Physics Organized by: Yue Liu , Vladimir Varlamov , Zhijun (George) Qiao , Bao-Feng Feng , Andrew N. W. Hone	Location WIL C205
14:00-14:30	Alex Himonas (University of Notre Dame, USA) Non-Uniform Dependence for the Euler Equations	Abstracts p. 159
14:30-15:00	Folkert Mueller-Hoissen (MPI for Dynamics and Self-Organization, Germany) Bidifferential Calculus Approach to Solutions of Akns-Type Hierarchies	Abstracts p. 161
15:00-15:30	Erik Wahlén (Universität des Saarlandes, Germany) Existence and Stability of Solitary Water Waves with Weak Surface Tension	Abstracts p. 161

Special Session 39	Mathematical Cancer Modelling Organized by: Thomas Hillen , Urszula Ledzewicz , Arnaud Chauviere	Location WIL A120
13:30-14:00	Dirk Lebiedz (University of Freiburg, Germany) Chemotherapy Modeling Based on Clinical Data for Methotrexate Treatment of Non-Hodgkin Lymphoma and Optimal Control of Drug Schedules	Abstracts p. 169
14:00-14:30	Urszula Ledzewicz (Southern Illinois University, USA) Minimizing Tumor Volume for Mathematical Models of Combined Chemotherapy and Anti-Angiogenic Treatment with Pharmacokinetics: Optimal and Realizable Suboptimal Protocols	Abstracts p. 169
14:30-15:00	Ami Radunskeya (Claremont Colleges, Pomona College, USA) A Model of Dendritic Cell Treatment of Solid Tumors	Abstracts p. 171
15:00-15:30	Leonid Hanin (Idaho State University, USA) Optimal Schedules of Cancer Screening Based on Models of Cancer Progression	Abstracts p. 167

Special Session 42	Interface Problems Organized by: Gunduz Caginalp , James Glimm , Alain Miranville	Location GER 038
14:00-14:30	Wolfgang Dreyer (WIAS Berlin, Germany) On a Paradox Within the Phase Field Modelling of Storage Systems and Its Resolution	Abstracts p. 181
14:30-15:00	Björn Stinner (University of Warwick, England) On a Surface Phase Field Model for Two-Phase Biological Membranes	Abstracts p. 184

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Special Session 44	Inverse Problems Organized by: Lassi Paivarinta, Gunther Uhlmann	Location GER 007
14:00-14:30	Martin Burger (University (WWU) Münster, Germany) 4D Reconstruction in Molecular Imaging	Abstracts p. 189
14:30-15:00	Luca Rondi (Università di Trieste, Italy) A Variational Approach to an Inverse Problem in Photolithography	Abstracts p. 192
15:00-15:30	Bastian Harrach (Joh. Gutenberg University Mainz, Germany) Localized Potentials for Elliptic Inverse Coefficient Problems	Abstracts p. 190

Special Session 45	Evolution Equations and Mathematical Biology Organized by: Jozsef Z. Farkas, Peter Hinow	Location WIL B321
14:30-15:00	Istvan Kiss (University of Sussex, UK, England) The Impact of Information Transmission on Epidemic Outbreaks	Abstracts p. 196
15:00-15:30	Sebastien Benzekry (Université de Provence, France) Modeling and Mathematical Analysis of Metastatic Growth Including Angiogenesis	Abstracts p. 194

Special Session 47	Time Decomposition Methods for Differential Equations: Theory and Application Organized by: Jurgen Geiser, Qin Sheng	Location GER 009
14:00-14:30	Stefan Güttel (Université de Genève, Switzerland) Krylov-Enhanced Parallel Integrators for Linear Problems	Abstracts p. 205
14:30-15:00	Aron Roland (Technical University Darmstadt, Germany) Perspectives for the Numerical Solution of the Wave Action Equation on Unstructured Meshes	Abstracts p. 205
15:00-15:30	Stéphane Descombes (Université de Nice Sophia Antipolis, France) Analysis of Parareal Operator Splitting Techniques for Multi-Scale Reaction Waves	Abstracts p. 204

Special Session 50	Positive Systems Organized by: Tobias Damm, Anke Kalauch	Location WIL C107
14:00-14:30	Stephane Gaubert (INRIA and Ecole Polytechnique, France) Tropical Aspects of Nonlinear Perron-Frobenius Theory	Abstracts p. 215
14:30-15:00	Alicia Herrero (Universidad Politecnica de Valencia, Spain) On the Solution of Nonnegative Discrete-Time Singular Control Systems	Abstracts p. 215
15:00-15:30	Jozef Bobok (Technical University in Prague, Czech Republic) Monotony of Solutions of Some Difference and Differential Equations	Abstracts p. 214

Special Session 52	Singular Perturbations Organized by: Freddy Dumortier, Peter De Maesschalck, Martin Wechselberger	Location HSZ 403
13:30-14:00	Vivien Kirk (University of Auckland, New Zealand) The Role of Multiple Timescales in Models of Intracellular Calcium Dynamics	Abstracts p. 224
14:00-14:30	Horacio Rotstein (New Jersey Institute of Technology, USA) Canard Dynamic Structures and Their Roles in Generating Abrupt Transitions between Firing Frequency Regimes in Neural Models: The Stellate Cell Case	Abstracts p. 226
14:30-15:00	Jianzhong Su (University of Texas at Arlington, USA) Chaotic Dynamics in a Fast-Slow Model of Bursting Neurons	Abstracts p. 227
15:00-15:30	Christian Kuehn (Cornell University, USA) Mixed-Mode Oscillations in the Koper Model: Analytical and Numerical Methods	Abstracts p. 225

Special Session 53	Global or/and Blow-Up Solutions for Nonlinear Evolution Equations and Their Applications Organized by: Shaohua George Chen, Ming Mei	Location POT 106
14:00-14:30	Bei Hu (University of Notre Dame, Indiana, USA) Gradient Blowup Rate for Nonlinear Parabolic Equations	Abstracts p. 228
14:30-15:00	Mokhtar Kirane (University of La Rochelle, France) Global Nonexistence Results for a Class of Hyperbolic Systems	Abstracts p. 229
15:00-15:30	Dung Le (University of Texas at San Antonio, USA) Global Existence for Higher Dimension Strongly Coupled Parabolic Systems	Abstracts p. 229

Special Session 57	Hyperbolic Dynamics and Smooth Ergodic Theory Organized by: Eugen Mihailescu, Bernd Stratmann	Location HSZ 301
14:00-14:30	Lluís Alseda (Universitat Autònoma de Barcelona, Spain) Attractors for Unimodal Quasiperiodically Forced Maps	Abstracts p. 240
14:30-15:00	Marc Kesseböhmer (University Bremen, Germany) Induced Topological Pressure and Regularity	Abstracts p. 242
15:00-15:30	Isabel Rios (Universidade Federal Fluminense, Brazil) Equilibrium States and Phase Transition for Partially Hyperbolic Diffeomorphisms	Abstracts p. 242

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Special Session 58	Hamiltonian and reversible systems Organized by: Amadeu Delshams, Oksana Koltsova	Location HSZ 101
14:00-14:30	Dmitry Treschev (Steklov Mathematical Institute, Russia) Oscillator and Thermostat	Abstracts p. 247
14:30-15:00	Ricardo Martins (Unicamp, Brazil) On the Similarity of Hamiltonian and Reversible Vector Fields in 6D	Abstracts p. 246
15:00-15:30	Piotr Zgliczyński (Jagiellonian University, Poland) Some Remarks on 3:1 Resonance of Area Preserving Maps	Abstracts p. 247

Special Session 62	Topological and Variational Methods in Differential and Difference Equations Organized by: Feliz Minhos, Alberto Cabada	Location POT 251
14:30-15:00	Alberto Cabada (University of Santiago de Compostela, Spain) Anti-Maximum Principle for One Dimensional p-Laplacian Operator with Sign Changing Potential and Periodic Boundary Value Conditions	Abstracts p. 258
15:00-15:30	Juan Campos (Universidad Granada, Spain) Maximun Principle to Both Sides of an Eigenvalue	Abstracts p. 258

Special Session 63	Nonlinear Evolution Equations and Related Topics Organized by: Mitsuharu Otani, Tohru Ozawa	Location POT 112
13:30-14:00	Jean Vaillant (University Paris 6, France) Some Linear System of Partial Differential Equations with Real Characteristic of Constant Multiplicity	Abstracts p. 267
14:00-14:30	Noboru Okazawa (Tokyo University of Science, Japan) Schrödinger Type Evolution Equations with Monotone Nonlinearity	Abstracts p. 266
14:30-15:00	Pavel Naumkin (Universidad Michoacana, Mexico) On the Critical Nongauge Invariant Nonlinear Schrödinger Equation	Abstracts p. 266
15:00-15:30	Elena Kaikina (Istituto Tecnologico de Morelia, Mexico) Mixed Problem for Ott-Sudan-Ostrovskiy Equation	Abstracts p. 265

Special Session 64	Variational Methods for Non-Smooth Functions and Applications Organized by: Salvatore A. Marano, Siegfried Carl, Dumitru Motreanu	Location POT 361
13:30-14:00	Antonio Iannizzotto (University of Catania, Italy) Three Solutions for a Differential Inclusion Via Critical Point Theory	Abstracts p. 270
14:00-14:30	Giuseppina Barletta (Mediterranea University of Reggio Calabria, Italy) Existence and Multiplicity Theorems for a Second Order Nonautonomous System with a Nonsmooth Potential	Abstracts p. 268
14:30-15:00	Beatrice Di Bella (University of Messina, Italy) Multiple Solutions to Fourth-Order Boundary Value Problems	Abstracts p. 269
15:00-15:30	Giuseppina D'Agui (University of Messina, Italy) Infinitely Many Solutions for a Class of Nonlinear Elliptic Variational-Hemivariational Inequalities	Abstracts p. 269

Special Session 69	Non-local Equations in Biology Organized by: Yuan Lou, Salome Martinez	Location WIL C129
13:30-14:00	Jerome Coville (INRA- Avignon (BIOSP), France) Harnack Inequality for Nonlocal Operator	Abstracts p. 282
14:00-14:30	Juan Davila (U. de Chile - CMM, Chile) Periodic Fronts for Nonlocal Equations	Abstracts p. 282
14:30-15:00	Jorge Garcia-Melian (Universidad de La Laguna, Spain) Asymptotic Behavior of Solutions to Inhomogeneous Nonlocal Diffusion Problems	Abstracts p. 283
15:00-15:30	Salome Martinez (Universidad de Chile) Sign Changing Solutions for a Nonlocal Problem	Abstracts p. 283

Contributed Session 02	ODEs and Applications	Location WIL A124
14:10-14:30	Tomoyuki Tanigawa (Kumamoto University, Japan) On Nonlinear Perturbations of Second Order Linear Nonoscillatory Differential Equations	Abstract p. 297
14:30-14:50	Valery Gaiko (National Academy of Sciences of Belarus, Belarus) Limit Cycle Bifurcations and Geometric Applications	Abstract p. 294

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Contributed Session 09	PDEs and Applications	Location WIL C133
14:10-14:30	Jan Vimmr (University of West Bohemia, Czech Republic) Mathematical Modelling of Gaseous Slip Flow in a 3D Rectangular Microchannel	Abstract p. 327
14:30-14:50	Adam Kubica (Warsaw University of Technology, Poland) A Regularity Criterion for an Axially Symmetric Solution to the Navier-Stokes Equations	Abstract p. 320
14:50-15:10	Swaroop Bora (Indian Institute of Technology Guwahati, India) Oblique Scattering of Water Waves by an Uneven Ocean-Bed in a Two-Layer Fluid with Ice-Cover	Abstract p. 315
15:10-15:30	Alexey Schmidt (Inst. of Computational Modeling SB RAS, Russia) Reduction of Three-Dimensional Model of the Far Turbulent Wake to One-Dimensional Problem	Abstract p. 324

Coffee break	
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Wednesday, May 26 P.M. (2) Special Sessions

Special Session 01	Nonlinear Schroedinger Equations and Their Applications Organized by: Panayotis Kevrekidis, Ricardo Carretero, Dimitri Frantzeskakis	Location HSZ 105
16:00-16:30	Yaroslav Kartashov (ICFO-Institut de Ciencies Fotoniques, Spain) Inhibition of Light Tunneling in Waveguide Arrays	Abstracts p. 13
16:30-17:00	Tomas Dohnal (Karlsruhe Institute of Technology, Germany) Gap Solitons at Purely Nonlinear Interfaces	Abstracts p. 11
17:00-17:30	Wieslaw Krolikowski (Australian National University, Australia) Nonlocal Solitons	Abstracts p. 13
17:30-18:00	Sergej Flach (MPIPKS Dresden, Germany) Universal Spreading of Wave Packets in Disordered Nonlinear Systems	Abstracts p. 12

Special Session 03	Dynamics of Chaotic and Complex Systems Organized by: Jose M. Amigo, Miguel A. F. Sanjuan	Location POT 051
16:00-16:30	Judy Kennedy (Lamar University, USA) More Topology of Tank Stirring	Abstracts p. 22
16:30-17:00	Petri Piironen (National University of Ireland, Galway, Ireland) The Interaction between Grazing Bifurcations and Boundary Crises in an Impacting System	Abstracts p. 25
17:00-17:30	Rob Sturman (University of Leeds, England) Piecewise Isometries and Mixing in Granular Tumblers	Abstracts p. 26
17:30-18:00	Piotr Oprocha (Universidad de Murcia, Spain) Topological Entropy for Local Processes	Abstracts p. 24

Special Session 04	Mathematical Analysis of PDE Models in Materials Science Organized by: Toyohiko Aiki, Nobuyuki Kenmochi, Adrian Muntean	Location POT 006
16:00-16:30	Tetsuya Ishiwata (Shibaura Institute of Technology, Japan) Motion of Polygonal Curved Fronts by Crystalline Motion: V-Shaped Solutions and Eventual Monotonicity	Abstracts p. 28

Special Session 05	Qualitative Behavior of Dissipative Dynamical Systems Organized by: Alain Miranville, Maurizio Grasselli	Location GER 037
16:00-16:30	Pierluigi Colli (University of Pavia, Italy) Solutions to Phase Segregation and Diffusion Problems	Abstracts p. 33
16:30-17:00	Mathias Wilke (University of Halle-Wittenberg, Germany) On Quasilinear Parabolic Evolution Equations in Weighted L_g-Spaces	Abstracts p. 36
17:00-17:30	Giulio Schimperna (University of Pavia, Italy) Attractors for Reaction-Diffusion Systems in Unbounded Domains	Abstracts p. 36
17:30-18:00	Laurence Cherfils (University of La Rochelle, France) A Variational Formulation for the Caginalp System with Singular Potentials and Dynamic Boundary Conditions	Abstracts p. 32
18:00-18:30	Francesca Bucci (Università degli Studi di Firenze, Italy) Long-Term Dynamics of Some Composite Systems of Partial Differential Equations	Abstracts p. 32
18:30-19:00	Antonio Segatti (Università di Pavia, Italy) Finite Dimensional Reduction for a Reaction Diffusion Problem with Obstacle Potential	Abstracts p. 36

Special Session 07	Boundary Value Problems for Differential Equations and Inclusions Organized by: Cristina Marcelli, Francesca Papalini	Location HSZ 304
16:00-16:30	José Ángel Cid (University of Jaen, Spain) Periodic Solutions for φ-Laplacian Pendulum Equations	Abstracts p. 41
16:30-17:00	Valentina Taddei (University of Modena and Reggio Emilia, Italy) Semilinear Inclusions in Frechet Spaces	Abstracts p. 42
17:00-17:30	Alessandro Calamai (Università Politecnica delle Marche, Italy) Branches of Harmonic Solutions for a Class of Periodic Differential-Algebraic Equations	Abstracts p. 41
17:30-18:00	Nataliya Dilna (Slovak Academy of Sciences, Bratislava, Slovak R.) Weakly Nonlinear and Symmetric Periodic Differential Systems	Abstracts p. 41

Special Session 08	New Trends in Mathematical Fluid Dynamics Organized by: Eduard Feireisl	Location HSZ 405
16:00-16:30	Agnieszka Świerczewska-Gwiazda (University of Warsaw, Poland) Generalized Stokes Equations -- Existence of Weak Solutions	Abstracts p. 46
16:30-17:00	Dalibor Pražák (Charles University, Prague, Czech Republic) Stabilization of a Viscous, Compressible and Heat-Conducting Fluid Via Highly Oscillating External Forces	Abstracts p. 45
17:00-17:30	Adrian Muntean (TU Eindhoven, The Netherlands) Analysis of a Two-Scale Reaction-Diffusion System with Nonlinear Micro-Macro Transmission Condition	Abstracts p. 45
17:30-18:00	Nikolai Chemetov (CMAF/University of Lisbon, Portugal) Boundary Layer Problem: Navier-Stokes and Euler Equations	Abstracts p. 43

Special Session 11	New Developments in Qualitative Behavior of Nonlinear Evolutionary PDEs Organized by: Irena Lasiecka, Grozdna Todorova	Location GER 052
16:00-16:30	Wladimir Neves (Federal University of Rio de Janeiro, Brazil) Well-Posedness of the Cauchy Problem on Torus to Electromagnetoelastic System	Abstracts p. 56
16:30-17:00	Fabio Ancona (Università di Padova, Italy) Glimm Functional and Convergence Rate of Glimm Scheme for General Hyperbolic Systems	Abstracts p. 53
17:00-17:30	Delio Mugnolo (University of Ulm, Germany) Gradient System on Networks	Abstracts p. 56
17:30-18:00	Ademir Pazoto (Federal University of Rio de Janeiro, Brazil) Decay Estimates for the Korteweg-de Vries Equation on the Half-Line	Abstracts p. 57

Special Session 12	Nonautonomous Dynamics Organized by: Russell Johnson, Arno Berger, Sylvia Novo	Location HSZ E03
16:00-16:30	Gary Froyland (University of New South Wales, Sydney, Australia) Coherent Sets for Nonautonomous Dynamical Systems with Geophysical Applications	Abstracts p. 60
16:30-17:00	Kathrin Padberg-Gehle (TU Dresden, Germany) Probabilistic and Geometric Descriptions of Coherent Structures in Flows	Abstracts p. 61
17:00-17:30	Christian Poetzsche (Munich University of Technology, Germany) Nonautonomous Bifurcations: Robustness and Imperfection	Abstracts p. 61
17:30-18:00	Arno Berger (University of Alberta, Canada) More on Finite-Time Hyperbolicity	Abstracts p. 59

Special Session 14	Geometric Mechanics Organized by: Manuel de Leon, Juan Pablo Ortega, Andrew Lewis	Location POT 013
16:00-16:30	Simon Hochgerner (EPFL, Switzerland) Stochastic Chaplygin Systems	Abstracts p. 66
16:30-17:00	Olga Krupkova (Univ. of Ostrava & Univ. Melbourne, Czech Rep.) Regular Variational Problems on Nonholonomic Manifolds	Abstracts p. 66
17:00-17:30	Arjan van der Schaft (University of Groningen, Netherlands) Port-Hamiltonian Systems on Open Graphs	Abstracts p. 69
17:30-18:00	Juan-Pablo Ortega (CNRS, Universite de Franche-Comte, France) Superposition Rules and Stochastic Lie-Scheffers Systems	Abstracts p. 68

Special Session 15	Magnetohydrodynamics: Mathematical Problems and Astrophysical Applications Organized by: Antonio Ferriz-Mas, Rainer Hollerbach, Manuel Nunez, Frank Stefani, Andreas Tilgner	Location HSZ 103
16:00-16:30	Thomas Boeck (TU Ilmenau, Germany) Shear Flow Instability and Turbulence at Low Magnetic Reynolds Number	Abstracts p. 70
16:30-17:00	Janis Priede (Coventry University, England) Inviscid Helical Magnetorotational Instability in a Taylor-Couette Flow	Abstracts p. 73
17:00-17:30	Frank Stefani (Forschungszentrum Dresden-Rossendorf, Germany) Helical Magnetorotational Instability in Theory and Experiment	Abstracts p. 75

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Special Session 18	Scaling and Liouville theorems in studies of PDEs Organized by: Peter Polacik, Pavol Quittner	Location GER 039
16:00-16:30	Thomas Bartsch (Universität Giessen, Germany) Bifurcating Branches of Positive Solutions for a Nonlinear Elliptic System	Abstracts p. 82
16:30-17:00	Tobias Weth (Goethe-Universität Frankfurt, Germany) Existence and Nonexistence Results for Entire Solutions to Non-Cooperative Elliptic Systems	Abstracts p. 86
17:00-17:30	Wenxiong Chen (Yeshiva University, USA) Non-Existence of Positive Solutions to the Lane-Emden System and a System of Integral Equations	Abstracts p. 83
17:30-18:00	Pavol Quittner (Comenius University, Bratislava, Slovakia) Parabolic Liouville-Type Theorems Via Their Elliptic Counterparts	Abstracts p. 85

Special Session 19	Quasilinear Degenerate and Singular Elliptic and Parabolic Problems Organized by: Peter Takac, Ratnasingham Shivaji	Location WIL A317
16:00-16:30	Jean-Pierre Gossez (Université Libre de Bruxelles, Belgium) Principal Eigenvalues for Some Non Selfadjoint Elliptic Problems and Applications	Abstracts p. 88
16:30-17:00	Ann Derlet (Université Libre de Bruxelles, Belgium) Eigenvalue Problems for the p-Laplacian and Population Dynamics	Abstracts p. 87
17:00-17:30	Bénédicte Alziary (Université Toulouse 1 Capitole, France) Intrinsic Ultra-Contractivity of a Schrödinger Semigroup in $\mathbb{R}^N$	Abstracts p. 87
17:30-18:00	Jacky Cresson (University of Pau, France) Variational Formulation of the Convection-Diffusion Equation	Abstracts p. 87

Special Session 23	Nonlinear Elliptic PDEs and Geometric Analysis Organized by: Wenxiong Chen, Guofang Wang	Location HSZ 201
16:00-16:30	Miaomiao Zhu (ETH Zürich, Switzerland) Compactness for Dirac-Harmonic Maps from Degenerating Spin Surfaces	Abstracts p. 106
16:30-17:00	Wenxiong Chen (Yeshiva University, USA) Symmetry of Solutions for Nonlinear PDEs and Integral Systems	Abstracts p. 102

Special Session 24	Nonlinear Systems of Mixed Type and Applications Organized by: Zhaosheng Feng, Claire David, Tingwen Huang	Location WIL C307
16:00-16:30	Dina Razafindralandy (LEPTIAB, Universite de La Rochelle, France) Borel Divergent-Series Resummation Technique and Application to Numerical Simulation of Evolution Problems	Abstracts p. 109
16:30-17:00	Shuya Kanagawa (Tokyo City University, Japan) Approximated Solution of Ginzburg-Landau Equation Induced from Nearly Bichromatic Wave	Abstracts p. 108
17:00-17:30	Indranil Sen Gupta (Texas A&M University, USA) Generalization of Superradiance Integral Equation and Applications	Abstracts p. 109
17:30-18:00	Richard Schugart (Western Kentucky University, USA) Using Mathematical Modeling to Assess the Efficacy of Oxygen for Problem Wounds: Use of Hyperbaric or Topical Oxygen Therapies	Abstracts p. 109

Special Session 25	Analysis, Optimization and Control of Nonlinear Partial Differential Equation Evolution Systems Organized by: George Avalos, Lorena Bociu	Location HSZ 401
16:00-16:30	Valéria Domingos Cavalcanti (State University of Maringá, Brazil) On Qualitative Aspects for the Damped Korteweg-de Vries and Airy Type Equations	Abstracts p. 112
16:30-17:00	Irena Lasiecka (University of Virginia, USA) Analysis and Control of Flows in Gas-Structure Interactions	Abstracts p. 114
17:00-17:30	Lorena Bociu (INLN-CNRS, Sophia-Antipolis, France) Linearization of a Coupled System of Nonlinear Elasticity and Viscous Fluid	Abstracts p. 112

Special Session 28	Stochastic Partial Differential Equations Organized by: Wilfried Grecksch, Bjorn Schmalfuss	Location WIL C203
16:00-16:30	Michael Scheutzow (Technische Universität Berlin, Germany) Uniqueness of Invariant Measures for Stochastic Delay Equations	Abstracts p. 126
16:30-17:00	Arne Ogrowsky (Universität Paderborn, Germany) Random Differential Equations with Random Delay	Abstracts p. 125
17:00-17:30	Maria Garrido-Atienza (University of Sevilla, Spain) Evolution Equations Driving by a Fractional Brownian Motion	Abstracts p. 124
17:30-18:00	Peter Brune (University of Paderborn, Germany) Hyperbolic Equations with Dynamical Boundary Conditions	Abstracts p. 123

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Special Session 31	Emergence and Dynamics of Patterns in Nonlinear Partial Differential Equations from Mathematical Science Organized by: Danielle Hilhorst, Yoshihisa Morita, Kunimochi Sakamoto	Location GER 054
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16:30-17:00	Yasunori Maekawa (Kobe University, Japan) Asymptotic Behaviors of Solutions to Evolution Equations in the Presence of Symmetries	Abstracts p. 137
17:00-17:30	Mariya Ptashnyk (RWTH Aachen University, Germany) Boundedness of Solutions of the Haptotaxis Model of Cancer Invasion	Abstracts p. 138
17:30-18:00	Shoji Yotsutani (Ryukoku University, Japan) Global Bifurcation Structure on a Shadow System to the Gierer-Meinhardt System with a Source Term	Abstracts p. 139

Special Session 35	Geometric and Singular Analysis Organized by: Gerardo Mendoza, Michael Ruzhansky, B.-Wolfgang Schulze	Location WIL A221
16:00-17:00	Daniel Grieser (Universität Oldenburg, Germany) Blow-Up Analysis of Geodesics on Singular Surfaces	Abstracts p. 151
17:00-18:00	Klaus Kirsten (Baylor University, USA) Zeta Function on Surfaces of Revolution	Abstracts p. 151

Special Session 36	Reaction Diffusion Systems Organized by: Julian Lopez-Gomez	Location POT 151
16:00-16:30	Claudia Anedda (University of Cagliari, Italy) Second-Order Boundary Estimates for Solutions to Singular Elliptic Equations	Abstracts p. 153
16:30-17:00	Annegret Glitzky (WIAS, Berlin, Germany) Uniform Exponential Decay of the Free Energy for Voronoi Finite Volume Discretized Reaction-Diffusion Systems	Abstracts p. 154
17:00-17:30	Monica Marras (University of Cagliari, Italy) Bounds for Blow-Up Time for Solutions to Reaction-Diffusion Systems	Abstracts p. 156
17:30-18:00	Kazuhiro Takimoto (Hiroshima University, Japan) On the Uniqueness of a Solution to the Boundary Blowup Problem for Curvature Equation	Abstracts p. 158

Special Session 37	Nonlinear Evolution Equations of Mathematical Physics Organized by: Yue Liu , Vladimir Varlamov , Zhijun (George) Qiao , Bao-Feng Feng , Andrew N. W. Hone	Location WIL C205
16:00-16:30	Dmitry Pelinovsky (McMaster University, Canada) Short-Pulse Equation: Well-Posedness and Wave Breaking	Abstracts p. 161
16:30-17:00	Ingo Witt (Göttingen, Germany) Formation of Singularities Near Morse Points	Abstracts p. 162
17:00-17:30	Curtis Holliman (University of Notre Dame, USA) On the Well-Posedness of the Periodic Hunter-Saxton Equation	Abstracts p. 159
17:30-18:00	Jianqing Chen (University of Aveiro, Portugal) Stability of Standing Waves of a Class of Quasilinear Schrödinger Equation	Abstracts p. 159

Special Session 39	Mathematical Cancer Modelling Organized by: Thomas Hillen , Urszula Ledzewicz , Arnaud Chauviere	Location WIL A120
16:00-16:30	Michael Meyer-Hermann (HZI Braunschweig, Germany) Optimisation of Tumour Irradiation by Cell Cycle Synchronisation	Abstracts p. 170
16:30-17:00	Thomas Hillen (University of Alberta, Canada) Tumor Control Probability Models for Radiation Treatment	Abstracts p. 167
17:00-17:30	Arnaud Chauviere (University of Texas, Houston, USA) Open Discussion on Cancer Modelling	Abstracts p. 166

Special Session 40	Recent Developments in Optimal Control Organized by: Urszula Ledzewicz , Heinz Schaettler , Helmut Maurer	Location WIL A124
16:00-16:30	Sabine Pickenhain (BTU Cottbus, Germany) On Infinite Horizon Optimal Control of a Lotka-Volterra System	Abstracts p. 176
16:30-17:00	Matthias Bruns (Universität Münster, Germany) Optimal Control Models of Oil Exploration and Extraction	Abstracts p. 173
17:00-17:30	Andrzej Nowakowski (University of Lodz, Poland) Dual Dynaming Programming in Solving Some Optimal Shape Control Problem	Abstracts p. 175
17:30-18:00	Gabriel Dimitriu (University of Medicine and Pharmacy, Romania) Numerical Approach of an Optimal Harvesting Problem for a Controlled Predator-Prey System with Age-Structure	Abstracts p. 174

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Special Session 44	Inverse Problems Organized by: Lassi Paivarinta, Gunther Uhlmann	Location GER 007
16:00-16:30	Shitao Liu (University of Virginia, USA) An Inverse Problem for a Wave Equation	Abstracts p. 192

Special Session 45	Evolution Equations and Mathematical Biology Organized by: Jozsef Z. Farkas, Peter Hinow	Location WIL B321
16:00-16:30	Christoph Walker (Leibniz Universität Hannover, Germany) Weak Solutions to a Population Model for Proteus Mirabilis	Abstracts p. 200
16:30-17:00	Azmy Ackleh (University of Louisiana at Lafayette, USA) A Structured Juvenile-Adult Model with Application to Amphibians	Abstracts p. 193
17:00-17:30	Philipp Getto (Basque Center for Applied Mathematics, Spain) Modelling and Analysis of Stem Cell Differentiation	Abstracts p. 195
17:30-18:00	Horst Thieme (Arizona State University, USA) Spectral Bound and Reproduction Number for Infinite Population Structure and Time-Heterogeneity	Abstracts p. 199

Special Session 47	Time Decomposition Methods for Differential Equations: Theory and Application Organized by: Jurgen Geiser, Qin Sheng	Location GER 009
16:00-16:30	Fernando Casas (Universitat Jaume I, Spain) Processed Splitting Methods in Path Integral Monte Carlo Simulations	Abstracts p. 204
16:30-17:00	Jürgen Geiser (Humboldt University of Berlin, Germany) Successive Approximation for Solving Time-Dependent Problems	Abstracts p. 204

Special Session 50	Positive Systems Organized by: Tobias Damm, Anke Kalauch	Location WIL C107
16:00-16:30	Annalisa Zappavigna (Politecnico di Milano, Italy) On the Discretisation of Switched Positive Systems	Abstracts p. 217
16:30-17:00	Sergio Romero-Vivo (Universidad Politecnica de Valencia, Spain) Output Monotonicity for a Special Class of Linear Differential Systems	Abstracts p. 217
17:00-17:30	Marten Wortel (Leiden University, Netherlands) Positive Group Representations in Banach Lattices	Abstracts p. 217

Special Session 52	Singular Perturbations Organized by: Freddy Dumortier, Peter De Maesschalck, Martin Wechselberger	Location HSZ 403
16:00-16:30	Bernd Krauskopf (University of Bristol, England) A Boundary Value Approach to Computing Slow Manifolds and Canard Orbits	Abstracts p. 225
16:30-17:00	Hinke Osinga (University of Bristol, England) Mixed-Mode Oscillations and Canard Orbits in a Reduced Hodgkin-Huxley Model	Abstracts p. 225
17:00-17:30	Mathieu Desroches (University of Bristol (UK), England) Mixed-Mode Dynamics in the Olsen Model	Abstracts p. 223
17:30-18:00	Martin Wechselberger (University of Sydney, Australia) Folds and Canards in Advection-Reaction-Diffusion Models	Abstracts p. 227

Special Session 53	Global or/and Blow-Up Solutions for Nonlinear Evolution Equations and Their Applications Organized by: Shaohua George Chen, Ming Mei	Location POT 106
16:00-16:30	Wan-Tong Li (Lanzhou University, Peoples Rep. of China) Entire Solutions in Nonlocal Dispersal Equations	
16:30-17:00	Ming Mei (Champlain College and McGill University, Canada) Hyperbolic Damped p-System and Diffusion Phenomena	Abstracts p. 229
17:00-17:30	Bruno Rubino (University of L'Aquila, Italy) Steady States for a Heterogeneous Quantum-Classical 1-D Hydrodynamic Model for Semiconductor Devices	Abstracts p. 229
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Special Session 57	Hyperbolic Dynamics and Smooth Ergodic Theory Organized by: Eugen Mihailescu, Bernd Stratmann	Location HSZ 301
16:00-16:30	Open-Problem-Session	
16:30-17:00	Open-Problem-Session	

Special Session 58	Hamiltonian and reversible systems Organized by: Amadeu Delshams, Oksana Koltsova	Location HSZ 101
16:00-16:30	Henk Broer (Johann Bernoulli Inst., Groningen, Netherlands) On Parametrized KAM Theory	Abstracts p. 244
16:30-17:00	Lev Lerman (The University of Nizhny Novgorod, Russia) On Bifurcations in Hamiltonian Systems	Abstracts p. 246
17:00-17:30	Tamás Kovács (MPI PKS, Germany) Quasiperiodic Excitation in Hamiltonian Systems	Abstracts p. 245
17:30-18:00	Sergey Bolotin (Steklov Mathematical Institute, Moscow, Russia) Hill's Determinant of a Periodic Orbit	Abstracts p. 244

Special Session 59	Topological Invariants in Dynamical Systems Organized by: Grzegorz Graff, Wacław Marzantowicz	Location POT 006
17:00-17:30	Heinrich Steinlein (Universität München, Germany) Equivariant Degree Theory and Its Applications, Part 1	Abstracts p. 251
17:30-18:00	Wiesław Krawcewicz (University of Texas at Dallas, USA) Equivariant Degree Theory and Its Applications, Part 2	Abstracts p. 249

Special Session 62	Topological and Variational Methods in Differential and Difference Equations Organized by: Feliz Minhos, Alberto Cabada	Location POT 251
16:00-16:30	Irena Rachunkova (Palacky University, Olomouc, Czech Rep.) Asymptotic Properties of Singular Second-Order Differential Equations	Abstracts p. 262
16:30-17:00	Pedro Torres (University of Granada, Spain) Periodic Solutions of Second-Order Differential Equations with Attractive-Repulsive Singularities	Abstracts p. 263
17:00-17:30	Milan Tvrdý (Academy of Sciences, Prague, Czech Republic) On Periodic Singular Problems	Abstracts p. 263
17:30-18:00	Paweł Wilczyński (Jagiellonian University, Cracow, Poland) Periodic Solutions of Planar Nonautonomous Polynomial ODEs	Abstracts p. 264

Special Session 63	Nonlinear Evolution Equations and Related Topics Organized by: Mitsuharu Otani, Tohru Ozawa	Location POT 112
16:00-16:30	Yusuke Yamauchi (Waseda University, Japan) On Sign-Changing Solutions of a Damped Wave System and a Reaction-Diffusion System	Abstracts p. 268
16:30-17:00	Hiroshi Takeda (Tohoku University, Japan) Global Existence of Solutions for Higher Order Nonlinear Damped Wave Equations	Abstracts p. 267
17:00-17:30	Takahiro Tannai (Waseda University, Japan) Existence of Solutions for Some Nonlinear Damped Wave Equations	Abstracts p. 267
17:30-18:00	Jorge Esquivel-Avila (Universidad Autonoma Metropolitana, Mexico) Dynamic Analysis of a Quasilinear Riser Equation	Abstracts p. 264

Special Session 64	Variational Methods for Non-Smooth Functions and Applications Organized by: Salvatore A. Marano, Siegfried Carl, Dumitru Motreanu	Location POT 361
16:00-16:30	Giovanni Molica Bisci (University of Reggio Calabria, Italy) Infinitely Many Critical Points of Non-Differentiable Functions and Applications	Abstracts p. 271
16:30-17:00	Antonia Chinni (University of Messina, Italy) Multiplicity Results for a Discontinuous Dirichlet Problem Involving the $p(x)$-Laplace Operator	Abstracts p. 269
17:00-17:30	Ruediger Landes (University Of Oklahoma, USA) Supersolution in the Theory of Wavefronts	Abstracts p. 271
17:30-18:00	Isabelle Greff (University of Pau, France) Non-Differentiable Embedding of Lagrangian Systems and Partial Differential Equations	Abstracts p. 270

Special Session 65	Nonlinear Partial Differential Equations and Applications Organized by: Eun Heui Kim, Chung-Min Lee	Location GER 038
16:00-16:30	John Hunter (University of California at Davis, USA) Vorticity Discontinuities and a Burgers-Hilbert Equation	Abstracts p. 274
16:30-17:00	Chung-Min Lee (California State University Long Beach, USA) Direct Numerical Simulation on Inertial Particles in Strained Turbulent Flows	Abstracts p. 274
17:00-17:30	Volker Elling (University of Michigan, Ann Arbor, USA) Existence of Algebraic Vortex Spirals	Abstracts p. 272
17:30-18:00	Franz Fuchs (CMA, University of Oslo, Norway) Well-Balanced High Resolution Fv Schemes for the Simulation of Wave Propagation in 3-Dimensional Non-Isothermal Stratified Magneto-Atmospheres and the Effects of Radiation	Abstracts p. 273

Special Session 69	Non-local Equations in Biology Organized by: Yuan Lou, Salome Martinez	Location WIL C129
16:00-16:30	Sze-Bi Hsu (National Tsing-Hua University, Taiwan) Single Phytoplankton Species Growth with One Nutrient and Light in a Water Column	Abstracts p. 283
16:30-17:00	Feng-Bin Wang (National Tsing-Hua University, Taiwan) Competition of Microorganism for a Single Limited Resource with Structure of Cell Quota	Abstracts p. 284
17:00-17:30	Youshan Tao (Dong Hua University, Peoples Rep. of China) A Chemotaxis System with Porous Medium Diffusion and Logistic Source	Abstracts p. 283
17:30-18:00	Yuan Lou (Ohio State University, USA) Random Dispersal vs. Non-Local Dispersal	Abstracts p. 283

Special Session 71	Qualitative aspects of nonlinear differential equations Organized by: Marta Garcia-Huidobro, Raul Manasevich, James Ward	Location HSZ E05
16:00-16:30	Filomena Pacella (University of Roma "La Sapienza", Italy) Radially Shaped Solutions of Some Semilinear Elliptic Equations	Abstracts p. 288
16:30-17:00	Michal Kowalczyk (Universidad de Chile) Traveling Wave Laminations and the Jacobi-Toda System	Abstracts p. 287
17:00-17:30	Alexander Quaas (Universidad Santa Maria, Chile) Fundamental Solutions and Liouville Type Theorems for Nonlinear Integral Operators	Abstracts p. 288
17:30-18:00	Hiroyuki Usami (Gifu University, Japan) Asymptotic Forms of Slowly Decaying Solutions of Quasilinear Ordinary Differential Equations with Critical Coefficient Functions	Abstracts p. 289

Contributed Session 03	Delay and Difference Equations	Location GER 007
17:00-17:20	Fatima Fabião (CEMAPRE - ISEG UTLisbon, Portugal) A Delay Differential Equation and the Method of Generating Tree	Abstract p. 299
17:20-17:40	Cemil Tunc (Yuzuncu Yil University, Turkey) Stability, Boundedness and Uniform Boundedness of Solutions of Nonlinear Delay Differential Equations	Abstract p. 300

Contributed Session 09	PDEs and Applications	Location WIL C133
16:00-16:20	Ulrike Kant (University of Kassel, Germany) Singularities in the Geometrical Theory of Differential Equations	Abstract p. 319
16:20-16:40	Imran Naeem (Lahore University of Management Sc., Pakistan) Complex Lie Symmetries for Systems of Partial Differential Equations	Abstract p. 321
16:40-17:00	Martin Kohlmann (Leibniz University Hannover, Germany) Geometric Aspects of the Family of b-Equations	Abstract p. 319
17:00-17:20	Jaime Cruz-Sampedro (Universidad Metropolitana, Mexico) Classical Global Solutions for a Class of Eikonal Equations	Abstract p. 316
17:20-17:40	Muniraja Gopal (Christian College, Bangalore, India) Motion of Space Curves in Minkowski Space , the Defocusing Nonlinear Schrödinger Equation and the $So(2,1)$ Spin Equations	Abstract p. 318
17:40-18:00	Shadan Sadigh Behzadi (Islamic Azad University, Tehran, Iran) Solving Schrödinger Equation by Using Modified Variational Iteration and Homotopy Analysis Methods	Abstract p. 315

Wednesday,
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Thursday, May 27**A.M.****Sessions**

Special Session 01	Nonlinear Schroedinger Equations and Their Applications Organized by: Panayotis Kevrekidis, Ricardo Carretero, Dimitri Frantzeskakis	Location HSZ 105
10:15-10:45	Dmitry Pelinovsky (McMaster University, Canada) Excited States in the Thomas-Fermi Limit	Abstracts p. 13
10:45-11:15	Andrea Trombettoni (SISSA (Trieste), Italy) Josephson Devices with Ultracold Atoms	Abstracts p. 14
11:15-11:45	Vassilis Rothos (Aristotle University of Thessaloniki, Greece) Homoclinic Solitons in Spinor Bose-Einstein Condensates	Abstracts p. 14
11:45-12:15	Montserrat Guilleumas (Universitat de Barcelona, Spain) Dipolar Condensates Confined in a Toroidal Trap	Abstracts p. 12

Special Session 03	Dynamics of Chaotic and Complex Systems Organized by: Jose M. Amigo, Miguel A. F. Sanjuan	Location POT 051
10:15-10:45	Syamal Dana (Indian Inst. of Chem. Biology, Kolkata, India) Shil'nikov Chaos and Mixed-Mode Oscillation in Coupled Chua Oscillator: Theory and Experiment	Abstracts p. 21
10:45-11:15	Paul Wofo (University of Yaounde I, Cameroon) Nonlinear Dynamics of Electromechanical Devices: Theoretical and Experimental Results	Abstracts p. 26
11:15-11:45	Mikhail Zakrzhevsky (Riga Technical University, Riga, Latvia) How to Find Rare Periodic and Rare Chaotic Attractors?	Abstracts p. 27

Special Session 07	Boundary Value Problems for Differential Equations and Inclusions Organized by: Cristina Marcelli, Francesca Papalini	Location HSZ 304
10:15-10:45	Shui Hung Hou (The Hong Kong Polytechnic University, Hong Kong) On a Class of Integral Inclusions	Abstracts p. 41

Special Session 08	New Trends in Mathematical Fluid Dynamics Organized by: Eduard Feireisl	Location HSZ 405
10:15-10:45	Helmut Abels (University Regensburg, Germany) Two-Phase Flows of Viscous Incompressible Fluids with Different Densities	Abstracts p. 43
10:45-11:15	James Robinson (University of Warwick, England) Volume-Preserving Non-Autonomous Flows and Lagrangian Trajectories Associated to the 3D Navier-Stokes Equations	Abstracts p. 46
11:15-11:45	Milan Pokorný (Charles University, Prague, Czech Republic) Weak and Variational Solutions to Steady Compressible Navier-Stokes-Fourier System	Abstracts p. 45

Special Session 09	Mechanical Problems Organized by: Kuo-Chang Chen, Tianhong Li	Location HSZ E03
10:15-10:45	Vivina Laura Barutello (University of Turin, Italy) Collisions and Singularities in n-Body Type Problems	Abstracts p. 47
10:45-11:15	Hiroshi Ozaki (Tokai University, Numazu, Japan) Three-Body Choreographic Motion in Given Curves	Abstracts p. 48
11:15-11:45	Toshiaki Fujiwara (Kitasato University, Japan) Evolution on Shape Variables for the Planar Three-Body Problem	Abstracts p. 47
11:45-12:15	Francisco Javier Muñoz-Almaraz (Universidad CEU---Cardenal Herrera, Spain) Continuation of Gerver's Supereight Choreography	Abstracts p. 48

Special Session 11	New Developments in Qualitative Behavior of Nonlinear Evolutionary PDEs Organized by: Irena Lasiecka, Grozdana Todorova	Location GER 052
10:15-10:45	Thomas Seidman (University of Maryland, Baltimore County, USA) The Antman-Seidman Viscoelastic Rod Model with Self-Contact	Abstracts p. 57
10:45-11:15	Sergei Avdonin (University of Alaska, USA) Inverse Problems for Networks of Elastic Strings	Abstracts p. 54
11:15-11:45	Peng-Fei Yao (Academy of Sciences, Beijing, PR China) Uniform Decay of Local Energy for the Wave Equation with Variable Coefficients	Abstracts p. 58
11:45-12:15	Albert Altarovici (University of Virginia, Switzerland) Existence and Asymptotic Behavior of Solutions to Quasilinear Thermoelastic Systems without Mechanical Dissipation	Abstracts p. 53

Special Session 14	Geometric Mechanics Organized by: Manuel de Leon, Juan Pablo Ortega, Andrew Lewis	Location POT 013
10:15-10:45	Manuel de Leon (Instituto de Ciencias Matematicas, CSIC, Spain) Lagrangian Submanifolds in Nonholonomic Mechanics	Abstracts p. 69

Special Session 18	Scaling and Liouville theorems in studies of PDEs Organized by: Peter Polacik, Pavol Quittner	Location GER 039
10:15-10:45	Boyan Sirakov (University Paris Ouest, France) Liouville Theorems for Elliptic Inequalities and Systems	Abstracts p. 86
10:45-11:15	Scott Armstrong (Louisiana State University, USA) Fundamental Solutions and Liouville Results for Fully Nonlinear Elliptic Equations	Abstracts p. 82
11:15-11:45	Dominika Pilarczyk (Wrocław University, Poland) Singular Solutions of the Nonlinear Heat Equation	Abstracts p. 85

Special Session 19	Quasilinear Degenerate and Singular Elliptic and Parabolic Problems Organized by: Peter Takac, Ratnasingham Shivaji	Location WIL A317
10:15-10:45	Guido Sweers (Universität Köln, Germany) Biharmonic Equation and Relevant Boundary Conditions on Polygonal Domains	Abstracts p. 91
10:45-11:15	Yavdat Ilyasov (Institute of Mathematics RAS, Ufa SC, Russia) Existence of Compactons for Elliptic Equations with Autonomous Nonlinearity	Abstracts p. 89
11:15-11:45	Jochen Merker (University of Rostock, Germany) Strong Solutions of Doubly Nonlinear Navier-Stokes Equations	Abstracts p. 89

Special Session 20	Topological Dynamics Organized by: Piotr Oprocha, Francisco Balibrea Gallego, Victor Jimenez Lopez, Lluís Alseda i Soler	Location POT 361
10:15-10:45	Judy Kennedy (Lamar University, USA) Pseudoarcs and Generalized Inverse Limits	Abstracts p. 92
10:45-11:15	Sonja Štimac (University of Zagreb, Croatia) On Ingram's Conjecture	Abstracts p. 94
11:15-11:45	Marek Lampart (Technical University of Ostrava, Czech Republic) Topological Entropy for Set Valued Maps	Abstracts p. 93
11:45-12:15	Jiri Kupka (IRAFM, University of Ostrava, Czech Republic) Devaney Chaotic Fuzzy Dynamical Systems	Abstracts p. 92

Special Session 21	Intermingled Dynamics and Structure in Complex Systems Organized by: Regino Criado, Juan A. Almendral	Location HSZ 201
10:15-10:45	Eckehard Schöll (TU Berlin, Germany) Controlling Synchrony by Delay Coupling in Networks: From In-Phase to Splay and Cluster States	Abstracts p. 98
10:45-11:15	Jose Mendes (University of Aveiro, Portugal) k-Cores in Complex Networks	Abstracts p. 97
11:15-11:45	Miguel Romance (Rey Juan Carlos University, Spain) Spectral Centralities: Global vs Local Approach	Abstracts p. 97
11:45-12:15	Regino Criado (Rey Juan Carlos University, Spain) Some Relationships between Structural Properties of a Network and the Associated Line Graph	Abstracts p. 96

Special Session 24	Nonlinear Systems of Mixed Type and Applications Organized by: Zhaosheng Feng, Claire David, Tingwen Huang	Location WIL C307
10:15-10:45	Guanrong Chen (City University, Hong Kong) Pinning Control of Synchronization Over Complex Dynamical Networks	Abstracts p. 106
10:45-11:15	Samia Jones (Texas A&M University, Qatar) Data Mining Technique Based on Fuzzy Clustering	Abstracts p. 107
11:15-11:45	Tingwen Huang (Texas A&M University at Qatar, Qatar) Dynamics of Switching Systems	Abstracts p. 107

Special Session 25	Analysis, Optimization and Control of Nonlinear Partial Differential Equation Evolution Systems Organized by: George Avalos, Lorena Bociu	Location HSZ 401
10:15-10:45	Thomas Hagen (The University of Memphis, USA) Fiber Spinning of the Upper-Convected Maxwell Fluid	Abstracts p. 113
10:45-11:15	Petronela Radu (University of Nebraska-Lincoln, USA) Strong Solutions for Semilinear Wave Equations with Damping and Source Terms	Abstracts p. 114
11:15-11:45	George Avalos (University of Nebraska-Lincoln, USA) Rational Decay Rates for a Partial Differential Equation Model of Fluid-Structure Interaction	Abstracts p. 111

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Special Session 28	Stochastic Partial Differential Equations Organized by: Wilfried Grecksch, Bjorn Schmalfuss	Location WIL C203
10:15-10:45	Ji Shu (Sichuan Normal University, Peoples Rep. of China) Stochastic Nonlinear Schrödinger Equation with Harmonic Potential	Abstracts p. 126
10:45-11:15	Hannelore Lisei (Babes-Bolyai University, Cluj-Napoca, Romania) Solutions for Stochastic Equations of Schrödinger Type	Abstracts p. 125
11:15-11:45	Christian Roth (University Halle-Wittenberg, Germany) Q-Fractional Brownian Motion in Infinite Dimensions. Itô's Formula and Isometry	Abstracts p. 125
11:45-12:15	Wilfried Grecksch (University Halle (Saale), Germany) A Filtering Problem for a Fractional Stochastic Partial Differential Equation	Abstracts p. 124

Special Session 31	Emergence and Dynamics of Patterns in Nonlinear Partial Differential Equations from Mathematical Science Organized by: Danielle Hilhorst, Yoshihisa Morita, Kunimochi Sakamoto	Location GER 054
10:15-10:45	Isamu Ohnishi (Hiroshima University, Japan) Mathematical Analysis to Liesegang Phenomena	Abstracts p. 138
10:45-11:15	Giorgio Fusco (University of L'Aquila, Italy) Equivariant Entire Solutions to Elliptic Systems with Variational Structure	Abstracts p. 135
11:15-11:45	Kunimochi Sakamoto (Hiroshima University, Japan) Diffusion Systems with Interacting Flux on the Boundary	Abstracts p. 139

Special Session 32	Evolutionary Partial Differential Equations: Theory and Applications Organized by: Rainer Picard, Michael Reissig, Karen Yagdjian	Location POT 013
11:15-11:45	Massimo Cicognani (University of Bologna, Italy) Modulus of Continuity and Decay at Infinity in the Cauchy Problem for Evolution Equations with Real Characteristics	Abstracts p. 140
11:45-12:15	Albert Milani (UWM, USA & TU Dresden, Germany) Decay Estimates for Quasilinear Dissipative Hyperbolic Equations	Abstracts p. 142

Special Session 33	Operator Semigroups and Applications Organized by: Horst Thieme, Jürgen Voigt	Location WIL C129
10:15-10:45	Christoph Walker (Leibniz Universität Hannover, Germany) Positive Equilibrium Solutions in Some Nonlinear Age-Structured Population Models	Abstracts p. 148
10:45-11:15	Shinnosuke Oharu (Chuo University, Japan) Strongly Degenerate Parabolic Equations and the Associated Evolution Operators in BV Spaces	Abstracts p. 147
11:15-11:45	Azmy Ackleh (University of Louisiana at Lafayette, USA) A Nonlinear Evolutionary Game Replicator-Mutator Model on the Space of Measures	Abstracts p. 144
11:45-12:15	Adam Bobrowski (Lublin University of Technology, Poland) Lord Kelvin's Method of Images in the Semigroup Theory	Abstracts p. 145

Special Session 35	Geometric and Singular Analysis Organized by: Gerardo Mendoza, Michael Ruzhansky, B.-Wolfgang Schulze	Location WIL A221
10:15-10:45	Ingo Witt (Göttingen, Germany) Symbolic Parametrix Construction for the Strictly Hyperbolic Cauchy Problem	Abstracts p. 153

Special Session 36	Reaction Diffusion Systems Organized by: Julian Lopez-Gomez	Location POT 151
10:15-10:45	Yoshio Yamada (Waseda University, Japan) On a Limit System for a Class of Lotka-Volterra Competition Systems with Cross-Diffusion	Abstracts p. 158
10:45-11:15	Georg Hetzer (Auburn University, USA) Small Spatial Variation of the Reproduction Rate in a Two Species Competition Diffusion System	Abstracts p. 155
11:15-11:45	Stella Piro Vernier (University of Cagliari, Italy) Blow-Up Phenomena for Semilinear Heat Equations with Nonlinear Boundary Condition	Abstracts p. 156

Special Session 37	Nonlinear Evolution Equations of Mathematical Physics Organized by: Yue Liu , Vladimir Varlamov, Zhijun (George) Qiao, Bao-Feng Feng, Andrew N. W. Hone	Location WIL C205
10:15-10:45	Andrew Hone (University of Kent, UK, England) Peakon Equations with Spin	Abstracts p. 160
10:45-11:15	Rossen Ivanov (Imperial College London, England) Inverse Scattering Transform for the Degasperis-Procesi Equation	Abstracts p. 160
11:15-11:45	Baofeng Feng (The University of Texas-Pan American, USA) Integrable Discretization and Self-Adaptive Moving Mesh Method for the Harry-Dym Equation	Abstracts p. 159
11:45-12:15	Michail Todorov (Technical University of Sofia, Bulgaria) The Effect of the Linear Coupling on the Phase Shift of Interacting Solitons in Coupled Nonlinear Schrödinger Equations	Abstracts p. 161

Special Session 38	Navier-Stokes Equations and Related Problems Organized by: Reinhard Farwig, Jiri Neustupa, Werner Varnhorn	Location HSZ 204
10:15-10:45	Toshiaki Hishida (Nagoya University, Japan) 2D Flow Around a Rotating Body	Abstracts p. 163
10:45-11:15	Stanislav Kracmar (Czech Technical University, Czech Republic) Very Weak Solutions in Weighted L_q-Spaces to Equations of Flow Around a Rotating Body	Abstracts p. 163
11:15-11:45	Paul Deuring (Université Lille Nord de France) Asymptotic Profiles for Stationary Linearized Incompressible Flow Around Rotating and Translating Bodies	Abstracts p. 162

Special Session 40	Recent Developments in Optimal Control Organized by: Urszula Ledzewicz, Heinz Schaettler, Helmut Maurer	Location WIL A124
10:15-10:45	Andrey Sarychev (University of Florence, Italy) Controllability of Equations of Mathematical Physics with Euler Term	Abstracts p. 176
10:45-11:15	Jean-Baptiste Caillaud (Bourgogne University & CNRS, France) Energy Minimization in Two-Level Quantum Control: The Integrable Case	Abstracts p. 173
11:15-11:45	Ursula Felgenhauer (Brandenburg University of Technology, Germany) Notes on Solution Stability in Optimal Control Problems with Bang-Bang or Bang-Singular-Bang Control Behavior	Abstracts p. 174

Special Session 45	Evolution Equations and Mathematical Biology Organized by: Jozsef Z. Farkas, Peter Hinow	Location WIL B321
10:15-10:45	Arnaud Chauviere (University of Texas, Houston, USA) Modeling Cell Migration in the Extracellular Matrix	Abstracts p. 194
10:45-11:15	Nobuyuki Kato (Shimane University, Japan) Multi-Species Models of Size-Structured Population with Nonlinear Growth Rate	Abstracts p. 196
11:15-11:45	Marco Morandotti (SISSA - Trieste, Italy) An Existence and Uniqueness Result for the Dynamics of Micro-Swimmers	Abstracts p. 198
11:45-12:15	Michael Grinfeld (University of Strathclyde, Glasgow, Scotland) Modelling Radiation Damage	Abstracts p. 196

Special Session 48	Differential, Difference, and Dynamic Equations Organized by: Martin Bohner, Stefan Hilger, Agacik Zafer	Location WIL A120
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10:45-11:15	Petr Hasil (Masaryk University, Czech Republic) On Criticality of Higher Order Difference Operators	Abstracts p. 209
11:15-11:45	Pavel Řehák (Academy of Sciences, Czech Republic) Regular Variation on Various Time Scales and Its Application to Dynamic Equations	Abstracts p. 210
11:45-12:15	Petr Zemánek (Masaryk University, Brno, Czech Republic) Krein-Von Neumann and Friedrichs Extensions for Second Order Operators on Time Scales	Abstracts p. 211

Special Session 51	Holomorphic Dynamics in the Complex Plane and Higher Dimensions Organized by: Robert L. Devaney, Xavier Jarque, Janina Kotus	Location HSZ 301
10:15-10:45	Bodil Branner (Technical University of Denmark) The Structure Theorem of Degree d Complex Polynomial Vector Fields in $\mathbb{R}$	Abstracts p. 219
10:45-11:15	Kealey Dias (Christian-Albrechts-Universität zu Kiel, Germany) Parameter Space of Degree d Complex Polynomial Vector Fields in $\mathbb{R}$	Abstracts p. 220
11:15-11:45	Magnus Aspenberg (Sweden) Mating Cubic Polynomials	Abstracts p. 218
11:45-12:15	Linda Keen (CUNY -- Lehman College and Grad. Center, USA) Generalized Riley Slices	Abstracts p. 221

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Special Session 52	Singular Perturbations Organized by: Freddy Dumortier, Peter De Maesschalck, Martin Wechselberger	Location HSZ 403
10:15-10:45	Xiao-Biao Lin (North Carolina State University, USA) Spherically Symmetric Standing Waves for a Liquid/Vapor Phase Transition Model	Abstracts p. 225
10:45-11:15	Anna Ghazaryan (University of Kansas, USA) Slow-Fast Dynamics in a Combustion Model	Abstracts p. 224
11:15-11:45	Ferdinand Verhulst (University of Utrecht, Netherlands) Shooting at the Slow Manifold	Abstracts p. 227

Special Session 53	Global or/and Blow-Up Solutions for Nonlinear Evolution Equations and Their Applications Organized by: Shaohua George Chen, Ming Mei	Location POT 106
10:15-10:45	Mohammad Kafini (KFUPM, Saudi Arabia) On the Uniform Decay in Viscoelastic Cauchy Problems with Singular Kernels	Abstracts p. 228
10:45-11:15	Christian Stinner (Universität Duisburg-Essen, Germany) Rates of Convergence to Steady States for a Semilinear Parabolic Equation	Abstracts p. 230
11:15-11:45	Nasser-Eddine Tatar (King Fahd University, Saudi Arabia) Nonexistence for a Viscoelastic Problem in the Whole Space	Abstracts p. 230

Special Session 54	Applied Hyperbolic and Elliptic Dynamics Organized by: Marian Gidea, Ilie Ugarcovici	Location HSZ 103
10:15-10:45	Pablo Roldán (Universitat Politècnica de Catalunya, Spain) Arnold's Mechanism of Diffusion in the Spatial Circular Restricted Three Body Problem	Abstracts p. 233
10:45-11:15	Marian Gidea (Northeastern Illinois University, USA) Shadowing and Diffusion in Hamiltonian Systems	Abstracts p. 231
11:15-11:45	Alejandro Luque (Universitat Politècnica de Catalunya, Spain) Study of Elliptic Tori Via KAM Methods without Action-Angle Variables	Abstracts p. 232
11:45-12:15	Radu Saghin (CRM Barcelona, Spain) Dirac Physical Measures for Transitive Flows	Abstracts p. 234

Special Session 55	Perturbed Differential and Difference Equations Organized by: Conall Kelly, Alexandra Rodkina	Location WIL C107
10:15-10:45	Michael Grinfeld (University of Strathclyde, Glasgow, Scotland) Structural Instability in Biological Networks	Abstracts p. 235
10:45-11:15	Georgi Medvedev (Drexel University, USA) Denoising in Diffusively Coupled Dynamical Systems	Abstracts p. 236
11:15-11:45	Vladimir Kazakov (National Polytechnic Institute, Mexico) Reduction of the Order of Kinetic Equations in the Problem of the Attainment of Bounds by Random Processes	Abstracts p. 235

Special Session 58	Hamiltonian and reversible systems Organized by: Amadeu Delshams, Oksana Koltsova	Location HSZ 101
10:15-10:45	Jeroen Lamb (Imperial College London, England) One-Round Dynamics Near a Homoclinic Orbit to a Reversible Saddle-Center	Abstracts p. 246
10:45-11:15	Ale Jan Homburg (University of Amsterdam, Netherlands) Multiple Homoclinic Orbits and Homoclinic Tangles in Reversible Systems	Abstracts p. 245
11:15-11:45	J. Tomás Lázaro (Universitat Politècnica de Catalunya, Spain) Abundance of Attracting, Repelling and Elliptic Periodic Orbits in Two-Dimensional Reversible Maps	Abstracts p. 246
11:45-12:15	Oksana Koltsova (Imperial College London, England) Multi-Round Periodic Orbits Near a Homoclinic Orbit to a Hamiltonian Saddle-Center	Abstracts p. 245

Special Session 59	Topological Invariants in Dynamical Systems Organized by: Grzegorz Graff, Wacław Marzantowicz	Location POT 006
10:15-10:45	Francisco R. Ruiz del Portal (Universidad Complutense de Madrid, Spain) Rotation Numbers of Attractors	Abstracts p. 250
10:45-11:15	José Salazar (Universidad de Alcalá, Spain) A Poincaré Formula for the Fixed Point Indices of the Iterates of Planar Homeomorphisms	Abstracts p. 250
11:15-11:45	Marc Bonino (University Paris 13, France) A Topological Version of the Poincaré-Birkhoff Theorem	Abstracts p. 247

Special Session 62	Topological and Variational Methods in Differential and Difference Equations Organized by: Feliz Minhos, Alberto Cabada	Location POT 251
10:15-10:45	Pierpaolo Omari (University of Trieste, Italy) Solvability of a Prescribed Mean Curvature Equation: A Lower and Upper Solutions Approach	Abstracts p. 261
10:45-11:15	Luís Sanchez (Universidade de Lisboa, Portugal) Heteroclinic Orbits for $u'''=f(u)$	Abstracts p. 262
11:15-11:45	Alexander Domoshnitsky (Ariel University Center, Israel) Maximum Principles for One Component of Solution Vector for Systems of Functional Differential Equations	Abstracts p. 259

Special Session 63	Nonlinear Evolution Equations and Related Topics Organized by: Mitsuharu Otani, Tohru Ozawa	Location POT 112
10:15-10:45	Norisuke Ioku (Tohoku University, Japan) Some Space-Time Integrability Estimates of the Solution for Heat Equations in Two Dimension	Abstracts p. 265
10:45-11:15	Junichi Harada (Waseda University, Japan) Asymptotic Behavior of Solutions for One Dimensional Parabolic Equations with Nonlinear Boundary Conditions	Abstracts p. 265

Special Session 65	Nonlinear Partial Differential Equations and Applications Organized by: Eun Heui Kim, Chung-Min Lee	Location GER 038
10:45-11:15	Maya Chhetri (UNC Greensboro, USA) Existence of Multiple Positive Solutions to Some Semipositone Systems	Abstracts p. 272
11:15-11:45	Seung Yeal Ha (Seoul National University, Korea) Complete Synchronization of the Particle and Kinetic Kuramoto Model	Abstracts p. 273
11:45-12:15	Eun Heui Kim (California State University Long Beach, USA) Transonic Problems Arising in Multi-Dimensional Conservation Laws	Abstracts p. 274

Special Session 71	Qualitative aspects of nonlinear differential equations Organized by: Marta Garcia-Huidobro, Raul Manasevich, James Ward	Location HSZ E05
10:15-10:45	Satoshi Tanaka (Okayama University of Science, Japan) Uniqueness of Positive Radial Solutions of Superlinear Elliptic Equations in a Ball	Abstracts p. 289
10:45-11:15	Yong-Hoon Lee (Pusan National University, Korea) Eigenvalues and Bifurcations for One-Dim p-Laplacian Problems	Abstracts p. 288
11:15-11:45	Ignacio Guerra (Universidad de Santiago de Chile) Ground States for a Semilinear Elliptic Equation with Mixed Subcritical and Supercritical Growth	Abstracts p. 287

Contributed Session 03	Delay and Difference Equations	Location GER 007
10:15-10:35	Olena Kuzmych (Volyn National University, Lutsk, Ukraine) Stability Investigation of Hybrid Difference Systems with Delay	Abstract p. 299
10:35-10:55	Oleksandra Kukharenko (National University of Kyiv, Ukraine) Representation of the Solution of the First Boundary Problem for a System of Two Second Order Delay Equations	Abstract p. 299
10:55-11:15	Maria Vittoria Barbarossa (Technische Universität München, Germany) State-Dependent Neutral Delay Differential Equations in Population Dynamics	Abstract p. 298
11:15-11:35	Denys Khusainov (National University of Kyiv, Ukraine) Solution of First Boundary Problem of Thermal Conductivity Equation with Delay	Abstract p. 299
11:35-11:55	Andriy Shatyrko (National University of Kyiv, Ukraine) Absolute Robust Stability of the Delay Differential Systems	Abstract p. 299
11:55-12:15	Karolina Kropielnicka (University of Gdansk, Poland) Implicit difference methods for parabolic FDE on cylindric domains with initial boundary conditions of Robin type	

Contributed Session 08	Topological Methods and Fixed Points	Location GER 009
10:15-10:35	Paula Kemp (Missouri State University, USA) On Nonmeasurable Sets	Abstract p. 313
10:35-10:55	Maryna Viazovska (Max Planck Institute for Math., Bonn, Germany) Spherical Designs Via Brouwer Fixed Point Theorem	Abstract p. 313
10:55-11:15	Erdal Karapinar (Atilim University, Ankara, Turkey) Fixed Point Theorems in Banach Valued Metric Spaces	Abstract p. 312
11:15-11:35	Jaime Jorge Sánchez-Gabites (University of Warwick, England) How Strange Can an Attractor in a 3-Manifold Look Like?	Abstract p. 313

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Contributed Session 09	PDEs and Applications	Location WIL C133
10:15-10:35	Andrea Ballerini (SISSA/ISAS, Italy) Stable Determination of a Body Immersed in a Stationary Stokes Fluid	Abstract p. 314
10:35-10:55	Dominic Breit (Saarland University, Germany) Anisotropic Variational Problems in Fluid Mechanics and Nonlinear Elasticity	Abstract p. 316
10:55-11:15	Julia Ehrt (WIAS & Humboldt Universität Berlin, Germany) Cascades of Heteroclinic Connections in Viscous Balance Laws	Abstract p. 317
11:15-11:35	Michal Benes (CTU Prague, Czech Rep.) Some Properties of Solutions to the Viscous Navier-Stokes Flows in a Channel	Abstract p. 315
11:35-11:55	Nadja Ray (FAU Erlangen-Nuremberg, Germany) Colloidal and Fluid Dynamics in Porous Media Including Electrostatic Interaction	Abstract p. 323
11:55-12:15	Oleg Kelis (Ort Braude College, Israel) Kelvin-Helmholtz Instability Model for Supersonic Adiabatic Jet	Abstract p. 319

Lunch break	Mensa Bergstraße
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Special Session 01	Nonlinear Schroedinger Equations and Their Applications Organized by: Panayotis Kevrekidis, Ricardo Carretero, Dimitri Frantzeskakis	Location HSZ 105
14:00-14:30	Atanas Stefanov (The University of Kansas, USA) Global Well-Posedness and Small Data Scattering for the Ostrovsky Equation	Abstracts p. 14
14:30-15:00	Christopher Chong (University Stuttgart, Germany) Justification of the Nonlinear Schrödinger Equation in Case of Non-Trivial Quadratic Resonances	Abstracts p. 11
15:00-15:30	Nikos Karachalios (University of the Aegean, Greece) Existence Results and Finite Difference Discretization for the Hirota Equation	Abstracts p. 12

Special Session 02	Dynamics in Neuronal Networks Organized by: Qishao Lu, Jianzhong Su, Kiyoyuki Tchizawa	Location HSZ 304
13:30-14:00	Martin Wechselberger (University of Sydney, Australia) Multiple Time-Scales, Bursts and Canards in Pituitary Lactotroph Cells	Abstracts p. 17
14:00-14:30	Morten Pedersen (Lund University, Sweden, Denmark) Bifurcations of Noisy Phantom Bursting	Abstracts p. 16
14:30-15:00	Gemma Huguet (CRM-NYU, Spain) Modeling Tristable Perception for Visual Plaids	Abstracts p. 16
15:00-15:30	Toru Yazawa (Tokyo Metropolitan University, Japan) Sudden Death and Natural Death: DFA and Poincare Map of Heartbeat	Abstracts p. 17

Special Session 03	Dynamics of Chaotic and Complex Systems Organized by: Jose M. Amigo, Miguel A. F. Sanjuan	Location POT 051
13:30-14:00	Hinke Osinga (University of Bristol, England) Boundary Crisis: Mind the Gaps!	Abstracts p. 24
14:00-14:30	Jesus Seoane (Universidad Rey Juan Carlos, Madrid, Spain) Basin Boundary Metamorphosis Produced by Parametric Harmonic Perturbations	Abstracts p. 25
14:30-15:00	Ulrich Parlitz (University of Göttingen, Germany) Lyapunov Vectors and Modes Splitting of Extended Systems	Abstracts p. 24
15:00-15:30	Rui Dillão (IST, NonLinear Dynamics Group, Lisbon, Portugal) Computing the Topological Entropy of Unimodal Interval Maps	Abstracts p. 21

Special Session 06	Continuous and Discrete Dynamical Systems in Physics Organized by: Atanas Stefanov, Dmitry Pelinovsky	Location POT 112
13:30-14:00	Gerard Iooss (IUF, Université de Nice, France) On the Existence of Steady Quasipatterns of the Swift-Hohenberg Equation and of the Bénard-Rayleigh Convection Problem	Abstracts p. 38
14:00-14:30	Arnd Scheel (University of Minnesota, USA) Spatial Pattern Selection in Recurrent Precipitation and Liesegang Rings	Abstracts p. 40
14:30-15:00	Mark Groves (Universität des Saarlandes, Germany) Existence and Conditional Energetic Stability of Three-Dimensional Fully Localised Solitary Gravity-Capillary Water Waves	Abstracts p. 38
15:00-15:30	Stephen Shipman (Louisiana State University, USA) Bifurcation of Resonances in Open Periodic Waveguides	Abstracts p. 40

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Special Session 08	New Trends in Mathematical Fluid Dynamics Organized by: Eduard Feireisl	Location HSZ 405
13:30-14:00	Andro Mikelić (Université Lyon 1, Institut Camille Jordan, France) Global-in-Time Solutions for the Isothermal Matovich-Pearson Equations	Abstracts p. 44
14:00-14:30	Marta Lewicka (University of Minnesota, USA) Existence and Stability of Viscoelastic Shock Profiles	Abstracts p. 44
14:30-15:00	Anna Hundertmark (Hamburg University of Technology, Germany) Mathematical and Numerical Modelling of Shear-Dependent Non-Newtonian Flow in Compliant Vessels	Abstracts p. 44

Special Session 09	Mechanical Problems Organized by: Kuo-Chang Chen, Tianhong Li	Location HSZ E03
14:00-14:30	Mitsuru Shibayama (Kyoto University, Japan) Heteroclinic Connections between Triple Collisions and Relative Periodic Orbits in the Isosceles Three-Body Problem	Abstracts p. 49
14:30-15:00	Susanna Terracini (Università di Milano Bicocca, Italy) Symbolic Dynamics and Parabolic Trajectories in the n-Centre and n-Body Problems	Abstracts p. 49
15:00-15:30	Discussion	

Special Session 11	New Developments in Qualitative Behavior of Nonlinear Evolutionary PDEs Organized by: Irena Lasiecka, Grozdna Todorova	Location GER 052
14:00-14:30	Benabdallah Assia (University of Marseille, France) Controllability of Coupled Parabolic Equations	Abstracts p. 53
14:30-15:00	Mathias Wilke (University of Halle-Wittenberg, Germany) Qualitative Behaviour of Solutions for the Two-Phase Navier-Stokes Equations with Surface Tension	Abstracts p. 58
15:00-15:30	Rafaela Guberovic (ETHZürich, Switzerland) Localization of Analytic Regularity Criteria on the Vorticity and Balance between the Vorticity Magnitude and Coherence of the Vorticity Direction in the 3D NSE	Abstracts p. 55

Special Session 16	Traveling Waves in Reaction-Diffusion Equations: Theory and Applications Organized by: Francois Hamel, Masaharu Taniguchi	Location GER 009
15:00-15:30	Jong-Shenq Guo (National Taiwan Normal University, Taiwan) The Minimal Speed for a Two Species Competition System	Abstracts p. 76

Special Session 19	Quasilinear Degenerate and Singular Elliptic and Parabolic Problems Organized by: Peter Takac, Ratnasingham Shivaji	Location WIL A317
13:30-14:00	Mythily Ramaswamy (Centre for Applicable Mathematics, India) Weighted Eigenvalue Problems in Whole Space	Abstracts p. 90
14:00-14:30	Inbo Sim (University of Ulsan, Korea) Spectrum for 1-Dim p-Laplace Eigenvalue Problems with Singular Sign-Changing Weights	Abstracts p. 90
14:30-15:00	Eun Kyoung Lee (Pusan National University, Korea) Existence of Positive Solutions for Infinite Semipositone Systems	Abstracts p. 89
15:00-15:30	Yuanji Cheng (Malmo University, Sweden) Sturm Comparison Principle and Fucik Spectrum for Quarter-Linear Differential Equations	Abstracts p. 87

Special Session 20	Topological Dynamics Organized by: Piotr Oprocha, Francisco Balibrea Gallego, Victor Jimenez Lopez, Lluís Alseda i Soler	Location POT 361
14:00-14:30	Jan Kwiatkowski (Univ. of Warmia and Mazury in Olsztyn, Poland) Finite Rank Bratteli Diagrams and Their Invariant Measures	Abstracts p. 93
14:30-15:00	Petr Kurka (Center for Theoretical Study, Czech Republic) Dynamics of Iterative Systems	Abstracts p. 93
15:00-15:30	Roman Hric (Matej Bel University, Slovak Republic) On Almost Totally Disconnected Minimal Systems	Abstracts p. 92

Special Session 21	Intermingled Dynamics and Structure in Complex Systems Organized by: Regino Criado, Juan A. Almendral	Location HSZ 201
14:00-14:30	Juan L. G. Guirao (Polytechnical University of Cartagena, Spain) Different Notions of Chaos in Discrete Dynamical Systems and Relations between Them	Abstracts p. 96
14:30-15:00	Gerard Vidal (Institute of Physics, Spain) Bifurcation Analysis in Two Chaotic Coupled Systems Driven by an External Force	Abstracts p. 98
15:00-15:30	Rosa Benito (Universidad Politecnica de Madrid, Spain) Overview and Application of Heterogeneous Preferential Attachment Networks	Abstracts p. 96

Special Session 24	Nonlinear Systems of Mixed Type and Applications Organized by: Zhaosheng Feng, Claire David, Tingwen Huang	Location WIL C307
13:30-14:00	Qishao Lu (Beihang Univ., Peoples Rep. of China) Spatiotemporal Multiple Coherence Resonances and Calcium Waves in a Coupled Hepatocyte System	Abstracts p. 108
14:00-14:30	Michael Stich (Centro de Astrobiologia (CSIC-INTA), Spain) Stabilization of Uniform Solutions by Distributed Time-Delay Feedback in a Reaction-Diffusion Equation	Abstracts p. 110
14:30-15:00	Haiyan Wang (Arizona State University, USA) Mathematical Analysis of a System of PDE Arising from Epidermal Wound Healing	Abstracts p. 110
15:00-15:30	Wei Feng (UNC-Wilmington, USA) Traveling Waves and Their Stability for a Public Goods Game Model	Abstracts p. 107

Special Session 26	Nonsmooth Dynamical Systems Analysis, Modeling and Numerical Techniques Organized by: Bernard Brogliato, Joachim Gwinner, Lionel Thibault	Location HSZ 401
14:30-15:00	Martin Brokate (TU Munich, Germany) Dynamical Systems with Rate Independent Hysteresis	Abstracts p. 116
15:00-15:30	Remco Leine (ETH Zurich, Switzerland) The Bouncing Ball System: Lyapunov Stability and Symptotic Attractivity	Abstracts p. 118

Special Session 28	Stochastic Partial Differential Equations Organized by: Wilfried Grecksch, Bjorn Schmalfuss	Location WIL C203
14:00-14:30	Antje Mugler (University of Applied Sciences Zwickau, Germany) Generalized Polynomial Chaos Expansions	Abstracts p. 125
14:30-15:00	Daniel Henkel (TU Darmstadt, Germany) Pointwise Approximation of Stochastic Heat Equations with Additive Noise	Abstracts p. 124
15:00-15:30	Arnulf Jentzen (Bielefeld University, Germany) Non-Globally Lipschitz Counterexamples for the Stochastic Euler Scheme	Abstracts p. 125

Special Session 32	Evolutionary Partial Differential Equations: Theory and Applications Organized by: Rainer Picard, Michael Reissig, Karen Yagdjian	Location POT 013
14:00-14:30	Benaissa Abbes (University of Sidi Bel Abbes, Algeria) Energy Decay of Solutions to the Cauchy Problem for a Nondissipative Wave Equation	Abstracts p. 140
14:30-15:00	Jens Wirth (Imperial College London, England) Dispersive Estimates for Hyperbolic Systems with Time-Dependent Coefficients	Abstracts p. 143
15:00-15:30	Marcello D'Abbicco (University of Bari, Italy) Long Time Asymptotics for 2 by 2 Hyperbolic Systems	Abstracts p. 140

Special Session 33	Operator Semigroups and Applications Organized by: Horst Thieme, Jürgen Voigt	Location WIL C129
14:00-14:30	Michael Langenbruch (University of Oldenburg, Germany) On the Abstract Cauchy Problem for Operators on Locally Convex Spaces	Abstracts p. 146
14:30-15:00	Frieder Lippoth (Leibniz Universität Hannover, Germany) Singular Limits in Nonlinear Dynamical Systems	Abstracts p. 146
15:00-15:30	Markus Haase (Delft University of Technology, Netherlands) Singular Integrals for Operator Semigroups	Abstracts p. 145

Special Session 36	Reaction Diffusion Systems Organized by: Julian Lopez-Gomez	Location POT 151
13:30-14:00	David Costa (University of Nevada Las Vegas, USA) Sharp Constants and Minimizers for a Class of Caffarelli-Kohn-Nirenberg Inequalities	Abstracts p. 154
14:00-14:30	Umezū Kenichiro (Ibaraki University, Japan) Bifurcation Analysis for Indefinite Weight Boundary Value Problems with Nonlinear Boundary Conditions	Abstracts p. 155
14:30-15:00	Atsushi Yagi (Osaka University, Japan) Exponential Attractors for Non-Autonomous Chemotaxis Systems	Abstracts p. 158
15:00-15:30	Giovanni Porru (Cagliari University, Italy) Symmetry Breaking in Problems Involving Semilinear Equations	Abstracts p. 157

Special Session 37	Nonlinear Evolution Equations of Mathematical Physics Organized by: Yue Liu , Vladimir Varlamov, Zhijun (George) Qiao, Bao-Feng Feng, Andrew N. W. Hone	Location WIL C205
14:00-14:30	Elena Kaikina (Istituto Tecnologico de Morelia, Mexico) Nonlinear Evolution Equations with a Fractional Derivative on a Half-Line	Abstracts p. 160
14:30-15:00	Francesco Demontis (Università di Cagliari, Italy) An Explicit Formula for Exact Solutions to the Focusing NLS Equation	Abstracts p. 159
15:00-15:30	Hans-Christoph Kaiser (WIAS Berlin, Germany) A Transient Kohn--Sham Theory	Abstracts p. 160

Special Session 38	Navier-Stokes Equations and Related Problems Organized by: Reinhard Farwig, Jiri Neustupa, Werner Varnhorn	Location HSZ 204
13:30-14:00	Hideo Kozono (Tohoku University, Sendai, Japan) Global Compensated Compactness Theorem for General Differential Operators of First Order	Abstracts p. 163
14:00-14:30	Maria Specovius-Neugebauer (University of Kassel, Germany) Parabolic Systems in Two Space Dimensions with Critical Growth Behaviour	Abstracts p. 165
14:30-15:00	Sarka Necasova (Czech Academy of Sciences, Czech Republic) Global Existence of Solutions for the One-Dimensional Motions of a Compressible Viscous Gas with Radiation	Abstracts p. 164
15:00-15:30	Ana Silvestre (Instituto Superior Técnico, Lisbon, Portugal) Existence and Uniqueness of Time-Periodic Solutions with Finite Kinetic Energy for the Navier-Stokes Equations in $\mathbb{R}^3$	Abstracts p. 164

Special Session 40	Recent Developments in Optimal Control Organized by: Urszula Ledzewicz, Heinz Schaettler, Helmut Maurer	Location WIL A124
13:30-14:00	Erik Verriest (Georgia Institute of Technology, USA) Generalizations of Naismith's Problem: Minimal Transit Time between Two Points in a Heterogenous Terrain	Abstracts p. 177
14:00-14:30	Urszula Ledzewicz (Southern Illinois University, USA) Optimal Control of Cancer Immune System Interactions under Treatment	Abstracts p. 175
14:30-15:00	Maria do Rosario de Pinho (University of Porto-FE, Portugal) A Nonsmooth Maximum Principle for Optimal Control Problems with State Constraints	Abstracts p. 177
15:00-15:30	M. Margarida Ferreira (FEUP-ISR, Portugal) Application of Optimal Multiprocesses to Mixed Constrained Problems	Abstracts p. 174

Special Session 43	Recent advances on bifurcation problems Organized by: Andre Vanderbauwhede, Wolf-Juergen Beyn, Reiner Lauterbach	Location WIL A221
13:30-14:00	Claudia Wulff (University of Surrey, England) Numerical Relative Lyapounov Centre Bifurcation	Abstracts p. 188
14:00-14:30	Francisco Javier Muñoz-Almaraz (Universidad CEU---Cardenal Herrera, Spain) Numerical Explorations for Subharmonic Bifurcations in Reversible Systems	Abstracts p. 188
14:30-15:00	Ana Dias (University of Porto, Portugal) Hopf Bifurcation in One-Dimensional Symmetric Coupled Cell Networks	Abstracts p. 185
15:00-15:30	Pascal Chossat (Lab J-A Dieudonné, CNRS - UNSA, France) Hyperbolic Planforms in Relation to Visual Edges and Texture Perception	Abstracts p. 184

Special Session 45	Evolution Equations and Mathematical Biology Organized by: Jozsef Z. Farkas, Peter Hinow	Location WIL B321
14:00-14:30	Svetlana Bunimovich (Lecturer in the Ariel University Center, Israel) Using Quasi-Normal Form for the Examination of Tumor-Free Equilibrium Stability in a Bcg Mathematical Model	Abstracts p. 194
14:30-15:00	David Uminsky (UCLA, USA) A Delay Differential Equations Model for a Crocodilian Population	Abstracts p. 199
15:00-15:30	Joanna Pressley (Vanderbilt University, USA) A Delay Differential Equation Model for the Cell-Cycle Specificity of Vesicular Stomatitis Virus Efficacy	Abstracts p. 198

Special Session 46	Topological Methods for Boundary Value Problems Organized by: John Graef, Jeff Webb	Location HSZ 403
13:30-14:00	Jeff Webb (University of Glasgow, Scotland) A Nonlocal Problem Modelling a Thermostat	Abstracts p. 203
14:00-14:30	Sotiris Ntouyas (University of Ioannina, Greece) Existence Results for Semilinear Impulsive Neutral Functional Differential Inclusions with Nonlocal Conditions	Abstracts p. 202
14:30-15:00	Ratnasingham Shivaji (Mississippi State University, USA) S-Shaped Bifurcation Curves in Ecosystems	Abstracts p. 203
15:00-15:30	Haiyan Wang (Arizona State University, USA) Positive Periodic Solutions of a Class of Singular Nonautonomous Systems	Abstracts p. 203

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Special Session 48	Differential, Difference, and Dynamic Equations Organized by: Martin Bohner, Stefan Hilger, Agacik Zafer	Location WIL A120
14:00-14:30	Ralph Oberste-Vorth (Marshall University, USA) Subsequential Convergence of Solutions of Dynamic Equations on Time Scales	Abstracts p. 210
14:30-15:00	Bonita Lawrence (Marshall University, USA) Modeling Antibiotic Resistant Bacteria in Rivers	Abstracts p. 209
15:00-15:30	Stephen Clark (Missouri University of Science and Tech., USA) Boundary Data Maps for Schrödinger Operators on a Compact Interval	Abstracts p. 208

Special Session 51	Holomorphic Dynamics in the Complex Plane and Higher Dimensions Organized by: Robert L. Devaney, Xavier Jarque, Janina Kotus	Location HSZ 301
14:00-14:30	Nuria Fagella (Universitat de Barcelona, Spain) Configurations of Herman Rings for Meromorphic Transcendental Functions	Abstracts p. 220
14:30-15:00	Antonio Garijo (Universitat Rovira i Virgili, Spain) Singular Perturbations in the Quadratic Family with Multiple Poles	Abstracts p. 220
15:00-15:30	Xavier Jarque (Universitat Rovira i Virgili at Tarragona, Spain) Sierpinski Curve Julia Sets in Rational Maps of Degree Two	Abstracts p. 220

Special Session 53	Global or/and Blow-Up Solutions for Nonlinear Evolution Equations and Their Applications Organized by: Shaohua George Chen, Ming Mei	Location POT 106
14:00-14:30	Michael Winkler (Universität Duisburg-Essen, Germany) Highly Time-Oscillating Solutions for Very Fast Diffusion Equations	Abstracts p. 230
14:30-15:00	Manwai Yuen (The Hong Kong Polytechnic University, Hong Kong) Analytical Blowup Solutions of the Euler-Poisson/Navier-Stokes-Poisson Equations in R^N	Abstracts p. 230
15:00-15:30	Shaohua Chen (Cape Breton University, Canada) Boundedness and Blowup Solutions for Quasilinear Parabolic Systems with Lower Order Terms	Abstracts p. 228

Special Session 54	Applied Hyperbolic and Elliptic Dynamics Organized by: Marian Gidea, Ilie Ugarcovici	Location HSZ 103
14:00-14:30	James Meiss (University of Colorado, USA) Transport in Transient Dynamical Systems	Abstracts p. 232
14:30-15:00	Mario Natiello (Lund University, Sweden) Blowing-Up of Deterministic Fixed Points in Stochastic Population Dynamics	Abstracts p. 233
15:00-15:30	Gianluigi Del Magno (CEMAPRE -- Univ. Tecnica de Lisboa, Portugal) Filtering for Chaotic Maps	Abstracts p. 231

Special Session 55	Perturbed Differential and Difference Equations Organized by: Conall Kelly, Alexandra Rodkina	Location WIL C107
14:00-14:30	Alexandra Rodkina (UWI, Mona, Jamaica) Discretized Itô Formula and Stability of the Systems of Linear Stochastic Difference Equations	Abstracts p. 237
14:30-15:00	Thomas Waters (NUI Galway, Ireland) Stability in Systems Perturbed Internally by Quasiperiodic Terms	Abstracts p. 237
15:00-15:30	Conall Kelly (University of the West Indies, Jamaica) On the Implications of Feedback Geometry for Stochastic Numerical Methods	Abstracts p. 236

Special Session 59	Topological Invariants in Dynamical Systems Organized by: Grzegorz Graff, Wacław Marzantowicz	Location POT 006
13:30-14:00	Grzegorz Graff (Gdańsk University of Technology, Poland) Local Fixed Point Indices of Iterations of Planar Maps	Abstracts p. 248
14:00-14:30	Alfonso Ruiz (University of Granada, Spain) Location of Fixed Points in the Presence of Two Cycles	Abstracts p. 250
14:30-15:00	Grzegorz Gabor (Nicolaus Copernicus University, Toruń, Poland) Viable Trajectories in State-Dependent Impulsive Systems	Abstracts p. 248
15:00-15:30	Piotr Nowak-Przygodzki (Res. Group on Nonlinear Anal. at UAM, Poland) Otopology Classes of Local Maps	Abstracts p. 249

Special Session 61	Topological Methods for the Qualitative Analysis of Differential Equations Organized by: Marco Spadini, Pierluigi Benevieri	Location GER 054
13:30-14:00	Walter Dambrosio (Università di Torino, Italy) An Eigenvalue Problem for Planar Dirac Systems	Abstracts p. 255
14:30-15:00	Cristian Bereanu (Institute of Mathematics, Romania) Radial Solutions for Neumann Problems Involving Mean Curvature Operators	Abstracts p. 255
15:00-15:30	Irene Benedetti (University of Florence, Italy) Existence Results for Quasilinear Variational Inequalities Involving Multivalued Maps	Abstracts p. 255

Special Session 62	Topological and Variational Methods in Differential and Difference Equations Organized by: Feliz Minhos, Alberto Cabada	Location POT 251
13:30-14:00	Svatoslav Stanek (Palacky University, Olomouc, Czech Rep.) Positive Solutions for Dirichlet Problems of Singular Nonlinear Fractional Differential Equations	Abstracts p. 263
14:00-14:30	Marlene Frigon (University of Montreal, Canada) Existence of Solutions to Boundary Value Problems for Systems of Second Order Equations on Times Scales	Abstracts p. 260
14:30-15:00	Josef Diblík (Brno University of Technology, Czech Republic) Investigation of Asymptotic Behavior of Solutions of Systems of Discrete Equations	Abstracts p. 259
15:00-15:30	Cristina Marcelli (Technical University of Marche, Italy) Continuous Dependence in Front Propagation of Convective Reaction-Diffusion Equations	Abstracts p. 261

Special Session 65	Nonlinear Partial Differential Equations and Applications Organized by: Eun Heui Kim, Chung-Min Lee	Location GER 038
14:00-14:30	Barbara Keyfitz (The Ohio State University, USA) The Sonic Line as a Free Boundary: Stability under Perturbations	Abstracts p. 274
14:30-15:00	Kevin Payne (Università di Milano, Italy) Existence of Weak Solutions for Nonlinear Equations of Mixed Elliptic-Hyperbolic Type	Abstracts p. 275
15:00-15:30	Daniela Lupo (Politecnico di Milano, Italy) Non-Existence of Solutions for Nonlinear Equations of Mixed Elliptic-Hyperbolic Type	Abstracts p. 275

Special Session 66	Discrete Integrable Systems Organized by: Stephane Lafortune, Kenichi Maruno	Location GER 039
13:30-14:00	Adam Doliwa (University of Warmia and Mazury, Poland) Quadrilateral Lattices, Desargues Maps, and Their Affine Weyl Group Symmetry	Abstracts p. 276
14:00-14:30	Rod Halburd (University College London, England) Discrete Integrable Systems and the Self-Dual Yang-Mills Equations	Abstracts p. 276
14:30-15:00	Peter Hydon (University of Surrey, England) Integrable Systems Via Conservation Laws	Abstracts p. 277
15:00-15:30	Junta Matsukidaira (Ryukoku University, Japan) Constructing Two Dimensional Integrable Mappings Which Possess Invariants of High Degree	Abstracts p. 277

Special Session 68	Differential, Integral Equations and Their Application Organized by: Onur Alp Ilhan, Mokhtar Kirane, Nasser-eddine M Tatar	Location GER 007
14:30-15:00	Angela Jimenez-Casas (Universidad Pontificia Comillas, Spain) Dynamic Boundary Conditions as Limit of Singularity Perturbed	Abstracts p. 279
15:00-15:30	Katsuo Takano (Ibaraki University, Japan) On Integral Equations and Convolutional Decomposition of Certain Density Functions	Abstracts p. 281

Special Session 71	Qualitative aspects of nonlinear differential equations Organized by: Marta Garcia-Huidobro, Raul Manasevich, James Ward	Location HSZ E05
13:30-14:00	Matteo Franca (Marche Polytechnic University, Ancona, Italy) Complex Structure for Radial Solutions of a Semi-Linear Equation with Mixed Sobolev Growth	Abstracts p. 287
14:00-14:30	Paul Schmidt (Auburn University, USA) Large Radial Solutions of Polyharmonic Equations with Power Nonlinearities	Abstracts p. 288
14:30-15:00	Marta Garcia-Huidobro (Pontificia Universidad Catolica de Chile) Positive Solutions for a Class of Equations with a p-Laplace Like Operator and Weights	Abstracts p. 287
15:00-15:30	Monica Lazzo (University of Bari, Italy) Oscillatory Entire Solutions of a Biharmonic Equation with Power Nonlinearity	Abstracts p. 287

Contributed Session 04	Modelling and Math Biology	Location HSZ 101
14:10-14:30	Bruce Peckham (University of Minnesota Duluth, USA) Stoichiometric Population Models: Coexistence of Two Producers and One Consumer	Abstract p. 302
14:30-14:50	Chikahiro Egami (Numazu National College of Technology, Japan) Existence of a Hopf Bifurcation for the Nowak-Bangham Model in CTL Dynamics	Abstract p. 301
14:50-15:10	Christina Surulescu (IANS, University of Stuttgart, Germany) Modeling Cell Dispersion: Some New and Classical Approaches	Abstract p. 303
15:10-15:30	Emily Harvey (University of Auckland, NZ, New Zealand) Explaining Pulse Responses in Models of Intracellular Calcium Dynamics	Abstract p. 301

Contributed Session 09	PDEs and Applications	Location WIL C133
14:10-14:30	Petra Kordulová (Silesian University, Opava, Czech Republic) Water Flow in Unsaturated Soil with Preisach Hysteresis	Abstract p. 320
14:30-14:50	Rehana Naz (Lahore School of Economics, Pakistan) Group Invariant Solution for a Liquid Jet on a Hemi Spherical Shell	Abstract p. 321
14:50-15:10	Akif Ibragimov (Texas Tech. University, Lubbock, USA) Dynamics of the Fluid Stricture for Nonlinear Beam, Interacting with Fluid Flows (Stability Analyses and Simulation)	Abstract p. 318
15:10-15:30	Witold Sadowski (Warwick University, England) Restrictions of Weak Solutions to the Navier-Stokes Equations	Abstract p. 324

Coffee break	
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Thursday, May 27**P.M. (2)****Sessions**

Special Session 01	Nonlinear Schroedinger Equations and Their Applications Organized by: Panayotis Kevrekidis, Ricardo Carretero, Dimitri Frantzeskakis	Location HSZ 105
16:00-16:30	Vassilis Koukouloyannis (Technol. Educational Institution of Serres, Greece) Long-Range Interactions and Phase-Shift Discrete Breathers in Klein-Gordon Chains. A Comparison with the DNLS Results	Abstracts p. 13
16:30-17:00	Francisco J. Diaz-Otero (University of Vigo, Spain) Multiple Soliton Interaction in DM Optical Transmission Systems under Tod Effects	Abstracts p. 11

Special Session 02	Dynamics in Neuronal Networks Organized by: Qishao Lu, Jianzhong Su, Kiyoyuki Tchizawa	Location HSZ 304
16:00-16:30	Yong Zhao (Beijing Uni. of Aeron. and Astron., PR of China) Synchronization in Globally Weakly Coupled Neurons	Abstracts p. 18
16:30-17:00	Yang Zhuoqin (Beihang University, Beijing, Peoples Rep. of China) Generation Mechanisms of Electrical Bursting Patterns for Pancreatic β-Cells with Subspace Ca^{2+} and Ca^{2+}-Based Nucleotide Ratio	Abstracts p. 18
17:00-17:30	Lixia Duan (North China University of Technology, PR China) Bifurcation and Bursting in Morris-Lecar Model for Class I and Class II Excitability	Abstracts p. 15
17:30-18:00	Cuncai Hua (Yunnan Normal University, Peoples Rep. of China) Application of Jacobi Elliptic Function Expansion Method to Perturbed and Coupled KdV-Type Equations with Variable Coefficients	Abstracts p. 16

Special Session 03	Dynamics of Chaotic and Complex Systems Organized by: Jose M. Amigo, Miguel A. F. Sanjuan	Location POT 051
16:00-16:30	Edita Sakyte (Kaunas University of Technology, Lithuania) Calming a Chaotic Network of Dendritic Neurons Using Weak Phase Control Strategy Coupled with a Single Control Pulse	Abstracts p. 25
16:30-17:00	Pierre Inizan (IMCCE - Observatoire de Paris, France) Fractal Traps and Fractional Dynamics	Abstracts p. 22
17:00-17:30	Ines Mariño (Universidad Rey Juan Carlos, Madrid, Spain) Estimation of the Unknown Variables and Parameters of Chaotic Systems by Means of Synchronization	Abstracts p. 23
17:30-18:00	Thomas Aschenbrenner (MPI Institute for Extraterrestrial Phys., Germany) Quantifying the Effects of Anesthetics on Electrical Brain Activity by Synchronization Measures	Abstracts p. 19

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Special Session 06	Continuous and Discrete Dynamical Systems in Physics Organized by: Atanas Stefanov, Dmitry Pelinovsky	Location POT 112
16:00-16:30	Nicholas Ercolani (University of Arizona, USA) A Variational Theory for Point Defects in Patterns	Abstracts p. 37
16:30-17:00	Pavel Lushnikov (University of New Mexico, USA) Strong Turbulence from Multiple Collapses in Nonlinear Schrödinger Equation	Abstracts p. 39
17:00-17:30	Vassilis Rothos (Aristotle University of Thessaloniki, Greece) Travelling Waves in Forced Discrete NLS Equation	Abstracts p. 39
17:30-18:00	Panayotis Kevrekidis (University of Massachusetts, Amherst, USA) Nonlinear Waves in Granular Crystals	Abstracts p. 39

Special Session 09	Mechanical Problems Organized by: Kuo-Chang Chen, Tianhong Li	Location HSZ E03
16:00-16:30	Roberto Castelli (University of Paderborn, Germany) A Variational Approach to the Planar 2-Center Problem	Abstracts p. 47
16:30-17:00	Kamal Mamehrashi (Payame Noor University of Boukan, Iran) The Planet Motion under Effect of Drag Force $F=-\epsilon v$	Abstracts p. 48
17:00-17:30	Chun Hsien Hsiao (National Tsing Hua University, Taiwan) Some Remarks on Convex and Concave Central Configurations	Abstracts p. 47
17:30-18:00	Discussion	

Special Session 11	New Developments in Qualitative Behavior of Nonlinear Evolutionary PDEs Organized by: Irena Lasiecka, Grozdana Todorova	Location GER 052
16:00-16:30	Kiyoshi Mochizuki (Chuo University, Japan) Smoothing Properties for the Magnetic Schrödinger Operator with Singular Potential	Abstracts p. 56
16:30-17:00	Hiroshi Uesaka (Nihon University, Japan) Positive Solutions and Blow-Up for Semilinear Wave Equations with Non-Compactly Supported Non-Zero Initial Position	Abstracts p. 58
17:00-17:30	Ryo Ikehata (Hiroshima University, Japan) Optimal Decay Rate of the Energy for Linear Wave Equations with a Critical Potential	Abstracts p. 55
17:30-18:00	Masahiro Yamamoto (Koc University, Japan) Carleman estimates and the applications to inverse source problems for equations of fluid dynamics	

Special Session 16	Traveling Waves in Reaction-Diffusion Equations: Theory and Applications Organized by: Francois Hamel, Masaharu Taniguchi	Location GER 009
16:00-16:30	Mitsunori Nara (University of Tokyo, Japan) Large Time Behavior of Disturbed Planar Fronts in the Allen-Cahn Equation	Abstracts p. 77
16:30-17:00	Chiun-Chuan Chen (National Taiwan University, Taiwan) Traveling Fronts of Reaction-Diffusion Equations with Stefan-Like Boundary Conditions	Abstracts p. 75
17:00-17:30	Ken-Ichi Nakamura (Univ. of Electro-Communications, Tokyo, Japan) Homogenization Limit of Recurrent Traveling Waves in a 2D Saw-Toothed Cylinder	Abstracts p. 77
17:30-18:00	Toshiyuki Ogawa (Osaka University, Japan) Rotating and Standing Waves on Sphere	Abstracts p. 77

Special Session 19	Quasilinear Degenerate and Singular Elliptic and Parabolic Problems Organized by: Peter Takac, Ratnasingham Shivaji	Location WIL A317
16:00-16:30	Boyan Sirakov (University Paris Ouest, France) The Dirichlet Problem and Landesman-Lazer Type Results for Hamilton-Jacobi-Bellman Operators	Abstracts p. 91

Special Session 20	Topological Dynamics Organized by: Piotr Oprocha, Francisco Balibrea Gallego, Victor Jimenez Lopez, Lluís Alsedà i Soler	Location POT 361
16:00-16:30	Artur Siemaszko (Univ. of Warmia and Mazury in Olsztyn, Poland) ω-Limit Sets in Cylindrical Transformations Over Odometers	Abstracts p. 94
16:30-17:00	Andrew Barwell (University of Birmingham, England) Chain Transitivity, ω-Limit Sets and Symbolic Dynamics	Abstracts p. 91
17:00-17:30	Issam Naghmouchi (Faculty of Science of Bizerte, Tunisia) On Li-Yorke Pairs for Graph, Dendrite and Dendroid Map	Abstracts p. 93

Special Session 21	Intermingled Dynamics and Structure in Complex Systems Organized by: Regino Criado, Juan A. Almendral	Location HSZ 201
16:00-16:30	Yong Zou (Potsdam Inst. for Climate Impact Res., Germany) Recurrence Networks for Nonlinear Time Series Analysis	Abstracts p. 98
16:30-17:00	Jacobo Aguirre (Centro de Astrobio. CSIC-INTA, Madrid, Spain) Evolutionary Dynamics, Topology and Complexity on RNA Neutral Networks	Abstracts p. 95
17:00-17:30	Francisco Pedroche (Universitat Politecnica de Valencia, Spain) Modelling of Social Skills on Social Network Sites	Abstracts p. 97
17:30-18:00	Massimiliano Zanin (Innaxis Foundation & Research Institute, Spain) The Complex World of the Aeronautical Transportation System	Abstracts p. 98

Special Session 22	Spatially Structured Oscillations and Waves in Neural Media Organized by: Stephen Coombes, Paul Bressloff	Location WIL C203
17:00-17:30	Ingo Bojak (Radboud University Nijmegen, Netherlands) Connectivity, Activity Propagation and Patterns in Neural Mass Models	Abstracts p. 99
17:30-18:00	Axel Hutt (INRIA Nancy, France) The Power Spectrum of a Neural Population During General Anaesthesia	Abstracts p. 100

Special Session 24	Nonlinear Systems of Mixed Type and Applications Organized by: Zhaosheng Feng, Claire David, Tingwen Huang	Location WIL C307
16:00-16:30	Qingguo Meng (Tianjin University, Peoples Rep. of China) Duffing-van der Pol-Type Oscillator	Abstracts p. 108
16:30-17:00	Shumin Fei (Southeast University, Peoples Rep. of China) Delay-Derivative-Dependent Stability Criteria for Systems with Both Time-Varying and Distributed Delay	Abstracts p. 106

Special Session 26	Nonsmooth Dynamical Systems Analysis, Modeling and Numerical Techniques Organized by: Bernard Brogliato, Joachim Gwinner, Lionel Thibault	Location HSZ 401
16:00-16:30	Manuel Marques (University of Lisbon (CMAF, FCUL), Portugal) Non-Convex Sweeping Processes	Abstracts p. 118
16:30-17:00	Giovanni Colombo (Università di Padova, Italy) A Class on Non-Convex Sets and Their Applications in Control Theory	Abstracts p. 116
17:00-17:30	Laetitia Paoli (University of Saint-Etienne, France) A Proximal-Like Algorithm for Vibro-Impact Problems with a Non-Smooth Set of Constraints	Abstracts p. 119
17:30-18:00	Bernard Brogliato (INRIA, France) Well-Posedness, Stability and Invariance Results for a Class of Multivalued Lur'e Dynamical Systems	Abstracts p. 116

Special Session 27	Computational Dynamics Organized by: Michael Dellnitz, Oliver Junge, Kathrin Padberg-Gehle	Location POT 106
17:00-17:30	Tobias Jahnke (Karlsruhe Institute of Technology, Germany) On Hybrid Stochastic-Deterministic Models for Biochemical Reaction Kinetics	Abstracts p. 121
17:30-18:00	Utz Weber (Siemens AG, Germany) The Treatment of Uncertainties with Polynomial Chaos in an Industrial Environment	Abstracts p. 123

Special Session 32	Evolutionary Partial Differential Equations: Theory and Applications Organized by: Rainer Picard, Michael Reissig, Karen Yagdjian	Location POT 013
16:00-16:30	Sergio Spagnolo (University of Pisa, Italy) Propagation of Analyticity for Hyperbolic Systems in Several Space Dimensions	Abstracts p. 142
16:30-17:00	Todor Gramchev (Università di Cagliari, Italy) Hyperbolic Systems in $\mathbb{R}^n$ with Irregular Coefficients in t and Characteristics Admitting Superlinear Growth for $x \rightarrow \infty$	Abstracts p. 141
17:00-17:30	Seiichiro Wakabayashi (University of Tsukuba, Japan) On the Cauchy Problem for Second-Order Hyperbolic Operators with the Coefficients of Their Principal Parts Depending Only on the Time Variable	Abstracts p. 143
17:30-18:00	Anahit Galstyan (University of Texas-Pan American, USA) Similarity Solutions for the Semilinear Tricomi-Type Equations	Abstracts p. 141

Special Session 33	Operator Semigroups and Applications Organized by: Horst Thieme, Jürgen Voigt	Location WIL C129
16:00-16:30	Jacek Banasiak (University of KwaZulu-Natal, So Africa) Long Time Behaviour of Discrete Fragmentation -- from Exponential Stability to Chaos	Abstracts p. 144
16:30-17:00	Luisa Arlotti (Università degli Studi di Udine, Italy) Explicit Transport Semigroups Associated to Boundary Operators of Norm One	Abstracts p. 144
17:00-17:30	Jozsef Farkas (University of Stirling, Scotland) Semigroup Analysis of a Model for Structured Populations	Abstracts p. 145

Special Session 36	Reaction Diffusion Systems Organized by: Julian Lopez-Gomez	Location POT 151
16:00-16:30	Tetsutaro Shibata (Hiroshima University, Japan) Asymptotics of Solutions and Inverse Bifurcation Problems for Nonlinear Sturm-Liouville Problems	Abstracts p. 157
16:30-17:00	Susanna Terracini (Università di Milano Bicocca, Italy) A Reflection Principle and the Regularity of the Nodal Set of Segregated Critical Configurations	Abstracts p. 158
17:00-17:30	Shigeru Sakaguchi (Hiroshima University, Japan) Nonlinear Diffusion and Geometry of Domain	Abstracts p. 157
17:30-18:00	Takasi Senba (Kyushu Institute of Technology, Japan) On the Behavior of Solutions to a Parabolic-Elliptic System	Abstracts p. 157

Special Session 38	Navier-Stokes Equations and Related Problems Organized by: Reinhard Farwig, Jiri Neustupa, Werner Varnhorn	Location HSZ 204
16:00-16:30	Hugo Beirao da Veiga (Pisa University, Italy) Sharp Convergence of Viscous to Inviscid Flows under Slip Boundary Conditions	Abstracts p. 162
16:30-17:00	Patrick Penel (USTV, France) Evolutionary Navier-Stokes Equations and the Zero Viscosity Limit	Abstracts p. 164
17:00-17:30	Veronika Fišerová (TU Darmstadt, Germany) Stokes Resolvent System with Navier's Slip in Bounded and Unbounded Domains	Abstracts p. 163
17:30-18:00	Jan Stebel (Czech Academy of Sciences, Czech Republic) Shape Stability of Incompressible Fluids Subject to Navier's Slip	Abstracts p. 165

Special Session 40	Recent Developments in Optimal Control Organized by: Urszula Ledzewicz, Heinz Schaettler, Helmut Maurer	Location WIL A124
16:00-16:30	Bilel Daoud (Bourgogne University & CNRS, France) Discrete and Differential Homotopy in the Control of the Restricted Three-Body Problem	Abstracts p. 174
16:30-17:00	John Marriott (University of Hawaii, USA) Error Estimation and Construction of Piecewise Constant Suboptimal Controls	Abstracts p. 175
17:00-17:30	Dorota Bors (University of Łódź, Poland) (given by Marek Majewski) On the Controllability of Second Order Systems with Constrained Controls	Abstracts p. 172
17:30-18:00	Heinz Schaettler (Washington University, USA) On the Method of Characteristics in Optimal Control Theory	Abstracts p. 176

Special Session 41	Phase Field Methods in Material Sciences Organized by: Arnaud Rougirel, Appolinaire Abourou Ella	Location HSZ 405
16:00-16:30	Peter Galenko (German Aerospace Center (DLR), Germany) Non-Locality and Fluctuations in Fast Spinodal Decomposition Controlled by Diffusion	Abstracts p. 177
16:30-17:00	Michael Winkler (Universität Duisburg-Essen, Germany) Global Solutions in Higher Dimensions to a Fourth Order Parabolic Equation Modeling Epitaxial Thin Film Growth	Abstracts p. 180
17:00-17:30	Marco Fontelos (Consejo Sup. de Investigaciones Científicas, Spain) A Phase Field Model for Electrowetting	Abstracts p. 177
17:30-18:00	Günther Grün (University of Erlangen-Nürnberg, Germany) Electrowetting with Electrolyte Solutions: Analysis for a Two-Phase Model with Matched Densities and Some Perspectives	Abstracts p. 178

Special Session 43	Recent advances on bifurcation problems Organized by: Andre Vanderbauwhede, Wolf-Juergen Beyn, Reiner Lauterbach	Location WIL A221
16:00-16:30	Eusebius Doedel (Concordia University, Montreal, Canada) Orbit Continuation for Computing Stable/Unstable Manifolds, with Applications	Abstracts p. 185
16:30-17:00	Bernd Krauskopf (University of Bristol, England) Bifurcations of Global Manifolds in the Lorenz System	Abstracts p. 187
17:00-17:30	Frank Schilder (DTU, Denmark) Continuation of Sets of Constrained Orbit Segments	Abstracts p. 188
17:30-18:00	Mathieu Desroches (University of Bristol (UK), England) Spike-Adding in the Morris-Lecar Burster	Abstracts p. 185

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Special Session 45	Evolution Equations and Mathematical Biology Organized by: Jozsef Z. Farkas, Peter Hinow	Location WIL B321
16:00-16:30	Richard Kollár (Comenius University, Bratislava, Slovakia) A Mathematical Model for Heat Damage	Abstracts p. 197
16:30-17:00	Thomas Hillen (University of Alberta, Canada) Mathematical Modelling of Forest Fire Spread	Abstracts p. 196
17:00-17:30	Anca-Voichita Maticiuc (Leibniz University Hannover, Germany) Well-Posedness, Stability Properties and Bifurcation Analysis for a Tumor Growth Model	Abstracts p. 198
17:30-18:00	Jens Vogelgesang (Hausdorff Center Bonn and PACM Princeton, USA) Regularity of Nonlinear Partial Differential Systems Arising in Darwin-Nash Energy Efficiency Games	Abstracts p. 200

Special Session 46	Topological Methods for Boundary Value Problems Organized by: John Graef, Jeff Webb	Location HSZ 403
16:00-16:30	Marlene Frigon (University of Montreal, Canada) Existence Results for Systems of Third Order Differential Equations	Abstracts p. 201
16:30-17:00	Anna Capietto (University of Torino, Italy) A Multiplicity Result for a Class of Strongly Indefinite Asymptotically Linear Second Order Systems	Abstracts p. 200
17:00-17:30	Gennaro Infante (University of Calabria, Italy) Positive Solutions of a Nonlocal BVP Arising in Chemical Reactor Theory	Abstracts p. 202
17:30-18:00	Bryan Rynne (Heriot-Watt University, Scotland) Existence of Non-Variational Eigenvalues of the p-Laplacian Operator	Abstracts p. 202

Special Session 48	Differential, Difference, and Dynamic Equations Organized by: Martin Bohner, Stefan Hilger, Agacik Zafer	Location WIL A120
16:00-16:30	Stevo Stević (Serbian Academy of Sciences, Yugoslavia) Global Stability of Some Symmetric Difference Equations	Abstracts p. 211
16:30-17:00	Raziye Mert (Çankaya University, Turkey) A Necessary and Sufficient Condition for Oscillation of Second Order Sublinear Delay Dynamic Equations	Abstracts p. 210
17:00-17:30	Stefan Hilger (Katholische Universität Eichstätt, Germany) Orthogonal Polynomials in Quiver Representations	Abstracts p. 209
17:30-18:00	Narcisa Apreutesei (Technical University, Iasi, Romania) Elliptic Perturbations of Some Parabolic and Hyperbolic Problems	Abstracts p. 207

Special Session 51	Holomorphic Dynamics in the Complex Plane and Higher Dimensions Organized by: Robert L. Devaney, Xavier Jarque, Janina Kotus	Location HSZ 301
16:00-16:30	John Mayer (University of Alabama at Birmingham, USA) Buried Points in Julia Sets	Abstracts p. 221
16:30-17:00	Clinton Curry (Stony Brook University, USA) Condense Wandering Triangles	Abstracts p. 219
17:00-17:30	Tania Garfias-Macedo (Georg-August-Universität Göttingen, Germany) Perturbing Baker Domains into Attracting Basins	Abstracts p. 220
17:30-18:00	Anna Benini (SUNY (Stony Brook), UB (Barcelona), Spain) A Taste of Transcendental Dynamics	Abstracts p. 218

Special Session 54	Applied Hyperbolic and Elliptic Dynamics Organized by: Marian Gidea, Ilie Ugarcovici	Location HSZ 103
16:00-16:30	Hector Lomeli (ITAM, Mexico) Topological Classification of Heteroclinic Intersections	Abstracts p. 232
16:30-17:00	Jason Mireles James (Rutgers University, USA) Connecting Dynamics and Parameterization of Invariant Manifolds	Abstracts p. 232
17:00-17:30	Maciej Capinski (University of Sci. and Tech., Krakow, Poland) Computer Assisted Proof for Normally Hyperbolic Invariant Manifolds	Abstracts p. 231
17:30-18:00	Nikola Petrov (University of Oklahoma, USA) Combination of Scaling Exponents and Properties of Renormalization Operators	Abstracts p. 233

Special Session 55	Perturbed Differential and Difference Equations Organized by: Conall Kelly, Alexandra Rodkina	Location WIL C107
16:00-16:30	Jian Cheng (Dublin City University, Ireland) Characterisation of Global Stability of Differential Equations with Respect to a Fading Stochastic Perturbation	Abstracts p. 234
16:30-17:00	John Daniels (Dublin City University, Ireland) Long Memory and Asymptotic Behaviour in an Affine Stochastic Differential Equation with an Average Functional	Abstracts p. 235
17:00-17:30	John Appleby (Dublin City University, Ireland) Characterisation of Mean Square Convergence Rates in Solutions of Stochastic Volterra Equations with Applications to Finance	Abstracts p. 234

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Special Session 56	Spectral, Linear and Nonlinear Stability of Coherent Structures Organized by: Milena Stanislavova, Jared Bronski	Location GER 037
16:30-17:00	Jared Bronski (University of Illinois, USA) An Index Theorem Governing the Stability of Waves of KdV Type	Abstracts p. 237
17:00-17:30	Yuri Latushkin (University of Missouri-Columbia, USA) The Spectral Flow, Krein's Spectral Shift Function, and Fredholm Index	Abstracts p. 238
17:30-18:00	Frédéric Chardard (UMPA, ENS Lyon, France) Instability of Some Periodic Waves Arising in the Fifth Order Korteweg-de Vries Equation	Abstracts p. 237

Special Session 59	Topological Invariants in Dynamical Systems Organized by: Grzegorz Graff, Wacław Marzantowicz	Location POT 006
16:00-16:30	Piotr Zgliczyński (Jagiellonian University, Poland) Some Results on Multidimensional Perturbations of 1-Dim Maps	Abstracts p. 251
16:30-17:00	Jacek Szybowski (AGH University of Science and Technology, Poland) Cohomological M-Index Over the Phase Space for Discrete Semidynamical Systems	Abstracts p. 251
17:00-17:30	Paweł Pilarczyk (University of Minho, Braga, Portugal) Automatic Computation of the Conley Index. Algorithms and Applications	Abstracts p. 249
17:30-18:00	Justyna Signerska (Polish Academy of Sciences, Poland) Firing Maps for Differential Equations with Almost Periodic Coefficients	Abstracts p. 250

Special Session 61	Topological Methods for the Qualitative Analysis of Differential Equations Organized by: Marco Spadini, Pierluigi Benevieri	Location GER 054
16:00-16:30	Franco Obersnel (Università di Trieste, Italy) Multiple Nontrivial Solutions of a Prescribed Mean Curvature Problem	Abstracts p. 256
16:30-17:00	Grzegorz Kosiorowski (Jagiellonian University, Krakow, Poland) On Detecting Bounded and Periodic Orbits: Guiding Functions and Isolating Segments	Abstracts p. 256
17:00-17:30	Francisco Odair de Paiva (IMECC/UNICAMP, Brazil) Multiplicity Results for Asymptotically Linear Elliptic Problems	Abstracts p. 258
17:30-18:00	Anna Gierzkiewicz (Jagiellonian University, Kraków, Poland) Chaotic Dynamics in Periodic Isolating Segments	Abstracts p. 256

Special Session 62	Topological and Variational Methods in Differential and Difference Equations Organized by: Feliz Minhos, Alberto Cabada	Location POT 251
16:00-16:30	Francesca Papalini (Technical University of Marche, Italy) Heteroclinic Solutions of Boundary Value Problems on the Real Line Involving General Nonlinear Differential Operators	Abstracts p. 261
16:30-17:00	Felix Sadyrbaev (LU MII and Daugavpils University, Latvia) Comparison of Liénard Type Equations	Abstracts p. 262
17:00-17:30	Jesus Rodriguez (North Carolina State University, USA) Nonlinear Sturm-Liouville Problems Subject to Global Boundary Conditions	Abstracts p. 262
17:30-18:00	Casey Cremins (University of Maryland, USA) A Semilinear Vector Version of Krasnoselskii's Cone Compression-Expansion Theorem	Abstracts p. 259

Special Session 65	Nonlinear Partial Differential Equations and Applications Organized by: Eun Heui Kim, Chung-Min Lee	Location GER 038
16:00-16:30	Allen Tesdall (City Univ. of N.Y., College of Staten Island, USA) High-Resolution Solutions for Shock Formation in Transonic Flow	Abstracts p. 275
16:30-17:00	Todor Popov (University of Sofia, Bulgaria) Semi-Fredholm Solvability of (3+1)-D Protter Problems	Abstracts p. 275
17:00-17:30	Tsvetan Hristov (University of Sofia, Bulgaria) Singular and Quasi-Regular Solutions to Protter Problem for Weakly Hyperbolic Equations	Abstracts p. 274

Special Session 66	Discrete Integrable Systems Organized by: Stephane Lafortune, Kenichi Maruno	Location GER 039
16:00-16:30	Reinout Quispel (La Trobe University, Australia) Sufficient Number of Integrals of the Lyness Equation of Arbitrary Order	Abstracts p. 278
16:30-17:00	Baofeng Feng (The University of Texas-Pan American, USA) The Semi- and Full-Discretizations for the Short-Wave Model of the Camassa-Holm Equation	Abstracts p. 276
17:00-17:30	Kenichi Maruno (University of Texas-Pan American, USA) Integrable Discretizations of the Short Pulse Equation	Abstracts p. 277

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Special Session 68	Differential, Integral Equations and Their Application Organized by: Onur Alp Ilhan, Mokhtar Kirane, Nasser-eddine M Tatar	Location GER 007
16:00-16:30	Mahdi Boukrouche (LaMUSE, Saint-Etienne University, France) On Pullback Attractors for Two-Dimensional Turbulent Shear Flows with Tresca Law	Abstracts p. 279
16:30-17:00	Sébastien Tremblay (University of Québec (Trois-Rivières), Canada) Factorization of Schrödinger Operators and Pseudoanalytic Functions	Abstracts p. 281
17:00-17:30	Salim Messaoudi (KFUPM, Saudi Arabia) General Decay for the Solution of a Viscoelastic Wave Equation with a Nonlinear Damping	Abstracts p. 280
17:30-18:00	Marcus Khuri (Stony Brook University, USA) A Boundary Value Problem for the Einstein Equations	Abstracts p. 280

Special Session 71	Qualitative aspects of nonlinear differential equations Organized by: Marta Garcia-Huidobro, Raul Manasevich, James Ward	Location HSZ E05
16:00-16:30	Raul Manasevich (University of Chile) Some Remarks on Existence of Radial Positive Solutions to a p-q Laplace System in the Subcritical Case	Abstracts p. 288

Contributed Session 04	Modelling and Math Biology	Location HSZ 101
16:00-16:20	Gustavo Cruz-Pacheco (National University of Mexico) Modelling the AH1N1 Virus Epidemic in Mexico City: The First Predictions and Analysis	Abstract Abstract p. 300
16:20-16:40	Irina Martynova (Voronezh State Academy of Technology, Russia) Periodic Oscillations in Systems with Nearly Elastic Obstacles	Abstract p. 302
16:40-17:00	Jan Kelkel (Universität Stuttgart, Germany) A Multiscale Approach to Cell Migration in Tissue Networks	Abstract p. 301
17:00-17:20	Fong Yin Lim (Inst. of High Performance Computing, Singapore) The Size, Shape, and Dynamics of Cellular Blebs	Abstract p. 302
17:20-17:40	Luca Scardovi (Technische Universität München, Germany) Synchronization of Interconnected Systems with Applications to Biochemical Networks	Abstract p. 303

Contributed Session 09	PDEs and Applications	Location WIL C133
16:00-16:20	Vitezslav Adamek (University of West Bohemia, Pilsen, Czech Rep.) Non-Stationary Vibrations of a Thin Viscoelastic Disc	Abstract p. 313
16:20-16:40	Hector Oviedo (ESIME, National Polytechnic Institute, Mexico) Biquaternionic Representation for the Time-Dependent Electromagnetic Fields in Chiral Media	Abstract p. 321
16:40-17:00	Leszek Bartczak (Warsaw University of Technology, Poland) Mathematical Analysis of Some Model in Thermo-Visco-Plasticity	Abstract p. 315
17:00-17:20	Natalia Chinchaladze (Tbilisi State University, Rep. of Georgia) Cylindrical Vibration of Cusped Reisner-Mindlin Plates	Abstract p. 316
17:20-17:40	Pierre Gabriel (Laboratoire Jacques-Louis Lions, Paris 6, France) Analysis of a Polymerization Model Involved in Prion Proliferation	Abstract p. 317

Friday, May 28**A.M.****Sessions**

Special Session 02	Dynamics in Neuronal Networks Organized by: Qishao Lu, Jianzhong Su, Kiyoyuki Tchizawa	Location HSZ 304
10:15-10:45	Jianzhong Su (University of Texas at Arlington, USA) Modeling Independent Signaling of Spontaneous and Evoked Neurotransmissions	Abstracts p. 17
10:45-11:15	Jonathan Bell (University of Maryland Baltimore County, USA) Analysis of a Model for an Excitable Fiber with Myotonia or Periodic Paralysis	Abstracts p. 14
11:15-11:45	Linghai Zhang (Lehigh University, USA) Neuronal Waves	Abstracts p. 18
11:45-12:15	Lee Deville (University of Illinois, USA) Limit Theorems for Stochastic Neuronal Network Dynamics	Abstracts p. 15

Special Session 03	Dynamics of Chaotic and Complex Systems Organized by: Jose M. Amigo, Miguel A. F. Sanjuan	Location POT 051
10:15-10:45	Tassos Bountis (University of Patras, Greece) Energy Localization on q-Tori, Long Term Stability and the Interpretation of the FPU Paradox	Abstracts p. 20
10:45-11:15	Carlos Escudero (Consejo Sup. de Investigaciones Científicas, Spain) Dynamics of Generalized Hydrodynamical Models	Abstracts p. 21
11:15-11:45	G. Hussian Erjaee (Qatar University) Phase Synchronization in Coupled Sprott Chaotic Systems Presented by Fractional Differential Equations	Abstracts p. 21

Special Session 06	Continuous and Discrete Dynamical Systems in Physics Organized by: Atanas Stefanov, Dmitry Pelinovsky	Location POT 112
10:15-10:45	Gero Friesecke (TU Munich, Germany) Mean-Field Approximation of Transfer Operators in High-Dimensional Conformation Dynamics	Abstracts p. 37
10:45-11:15	Guillaume James (Grenoble University and CNRS, France) Continuation of Breathers from Infinity and Application to Dna Breathing	Abstracts p. 38
11:15-11:45	Hermen Jan Hupkes (Brown University, USA) Travelling Pulses for the Discrete Fitzhugh-Nagumo System	Abstracts p. 38

Special Session 09	Mechanical Problems Organized by: Kuo-Chang Chen, Tianhong Li	Location HSZ E03
10:15-10:45	Zhaosheng Feng (University of Texas-Pan American, USA) Korteweg-de Vries-Burgers-Type Equation	Abstracts p. 47
10:45-11:15	Peng-Fei Yao (Academy of Sciences, Beijing, PR China) Stability for Solutions of Wave Equations	Abstracts p. 49
11:15-11:45	Bogdan Kwiatkowski (University of Rzeszow, Poland) Influence of the Distribution of the Axial, Radial and Circumferential Component of the Magnetic Induction Vector Within the Space between Switches on Rupturing Capacity of Vacuum Switches	Abstracts p. 48
11:45-12:15	Nils Raabe (TU Dortmund, Germany) Physical Statistical Modelling of Bending Vibrations	Abstracts p. 48

Special Session 11	New Developments in Qualitative Behavior of Nonlinear Evolutionary PDEs Organized by: Irena Lasiecka, Grozdna Todorova	Location GER 052
10:15-10:45	Alexandre Carvalho (Universidade de São Paulo, Brazil) Exponential Global Attractors for Semigroups in Metric Spaces and Applications	Abstracts p. 54
10:45-11:15	Marta Lewicka (University of Minnesota, USA) Scaling Laws and Dimension Reduction in Nonlinear Elasticity	Abstracts p. 56
11:15-11:45	Shaohua Chen (Cape Breton University, Canada) Boundedness and Blowup for Nonlinear Degenerate Parabolic Equations	Abstracts p. 54
11:45-12:15	Nikolai Chemetov (CMAF/University of Lisbon, Portugal) Nonlinear Hyperbolic-Elliptic Systems	Abstracts p. 54

Special Session 16	Traveling Waves in Reaction-Diffusion Equations: Theory and Applications Organized by: Francois Hamel, Masaharu Taniguchi	Location GER 009
10:15-10:45	Matthieu Alfaro (University Montpellier 2, France) Sharp Interface Limit of the Fisher-KPP Equation	Abstracts p. 75
10:45-11:15	Hirokazu Ninomiya (Meiji University, Japan) Traveling Waves in the Various Shapes	Abstracts p. 77
11:15-11:45	Danielle Hilhorst (University of Paris-Sud 11, France) Singular Limit of a Degenerate Parabolic Allen-Cahn Equation	Abstracts p. 76

Special Session 20	Topological Dynamics Organized by: Piotr Oprocha, Francisco Balibrea Gallego, Victor Jimenez Lopez, Lluís Alseda i Soler	Location POT 361
10:15-10:45	Marta Stefankova (Silesian University, Opava, Czech Republic) Distributional Chaos and the Size of Scrambled Sets	Abstracts p. 94
10:45-11:15	Alfred Peris (Universitat Politècnica de València, Spain) Distributional Chaos and Completely Irregular Operators	Abstracts p. 93
11:15-11:45	Jaroslav Smital (Silesian University, Opava, Czech Republic) Distributional Chaos on Compact Metric Spaces -- Recent Results and Open Problems	Abstracts p. 94
11:45-12:15	William Ott (University of Houston, USA) Recurrence in Pairs	Abstracts p. 93

Special Session 21	Intermingled Dynamics and Structure in Complex Systems Organized by: Regino Criado, Juan A. Almendral	Location HSZ 201
10:15-10:45	Jesus Gomez-Gardenes (Universidad Rey Juan Carlos, Spain) Annealed Formulation of the Dynamics on Static and of Adaptive Complex Networks	Abstracts p. 96
10:45-11:15	Juan Almendral (Rey Juan Carlos University, Spain) Detection of Overlapping Communities by Synchronization	Abstracts p. 95

Special Session 22	Spatially Structured Oscillations and Waves in Neural Media Organized by: Stephen Coombes, Paul Bressloff	Location WIL C203
10:15-10:45	Fatihcan Atay (Max Planck Inst. for Math. in the Sci., Germany) On the Local and Global Dynamics of Neural Field Models with Time Delays	Abstracts p. 99
10:45-11:15	Stephan van Gils (University of Twente, Netherlands) Detailed and Population Models for Epilepsy	Abstracts p. 102
11:15-11:45	John Wyller (Norwegian University of Life Sciences, Norway) The Weakly Nonlocal Limit of a One-Population Wilson-Cowan Model	Abstracts p. 101
11:45-12:15	Linghai Zhang (Lehigh University, USA) How Do Neurobiological Mechanisms Influence the Speeds of Traveling Waves in Mathematical Neurosciences?	Abstracts p. 102

Special Session 26	Nonsmooth Dynamical Systems Analysis, Modeling and Numerical Techniques Organized by: Bernard Brogliato, Joachim Gwinner, Lionel Thibault	Location HSZ 401
10:15-10:45	Hany Hosham Bakit (University of Cologne, Germany) On Dynamics and Bifurcations of 3D Piecewise Systems	Abstracts p. 117
10:45-11:15	Arjan van der Schaft (University of Groningen, Netherlands) The State Transfer Principle for Switching Port-Hamiltonian Systems	Abstracts p. 119
11:15-11:45	Kanat Camlibel (University of Groningen, Netherlands) On the Interconnection of Linear Passive Systems and Monotone Characteristics	Abstracts p. 116

Special Session 27	Computational Dynamics Organized by: Michael Dellnitz, Oliver Junge, Kathrin Padberg-Gehle	Location POT 106
10:15-10:45	Andrzej Banaszuk (United Technologies Research Center, USA) Scalable Methods for Uncertainty Quantification	Abstracts p. 120
10:45-11:15	Jens Kemper (Bielefeld University, Germany) Computation of Invariant Measures with Model Reduction Methods	Abstracts p. 121
11:15-11:45	Péter Koltai (Technische Universität München, Germany) Fast Approximation of Long Term Dynamical Behaviour for Continuous-Time Systems	Abstracts p. 122
11:45-12:15	Michael Kratzer (TU München, Germany) Towards Density-Based Methods for Nonlinear Conservation Laws	Abstracts p. 122

Special Session 32	Evolutionary Partial Differential Equations: Theory and Applications Organized by: Rainer Picard, Michael Reissig, Karen Yagdjian	Location POT 013
10:15-10:45	Nishitani Tatsuo (Osaka University, Japan) On the Cauchy Problem for Noneffectively Hyperbolic Operators in the Gevrey Classes	Abstracts p. 143
10:45-11:15	Tohru Ozawa (Waseda University, Japan) Analytic Smoothing Effect for Nonlinear Schrödinger Equations	Abstracts p. 142
11:15-11:45	Michael Dreher (University of Konstanz, Germany) Dissipation in Viscous and Inviscid Quantum Hydrodynamics	Abstracts p. 140
11:45-12:15	Jürgen Saal (University of Konstanz, Germany) A Hyperbolic Fluid Model Based on Cattaneo's Law	Abstracts p. 142

Special Session 33	Operator Semigroups and Applications Organized by: Horst Thieme, Jürgen Voigt	Location WIL C129
10:15-10:45	Peter Hinow (University of Wisconsin - Milwaukee, USA) On a Size-Structured Two-Phase Population Model with Infinite States-At-Birth	Abstracts p. 145
10:45-11:15	Alex Mahalov (Arizona State University, USA) Rotating Fluids in a Halfspace: The Ekman Boundary Layer Problem	Abstracts p. 146
11:15-11:45	Ioan Vrabie (Department of Mathematics, Romania) Nonlinear Evolution Inclusions with Nonlocal Initial Conditions	Abstracts p. 148
11:45-12:15	Lutz Weis (KIT Karlsruhe, Germany) Floquet Theory for Partial Differential Equations and Evolution Semigroups	Abstracts p. 148

Special Session 34	Dynamical Systems and Spectral Theory of Ergodic Operators Organized by: Daniel Lenz, Peter Stollmann	Location WIL A124
10:15-10:45	Roberta Fabbri (Università di Firenze, Italy) On the Lyapunov Exponent and Hyperbolicity for $SL(2, \mathbb{R})$-Valued Cocycles	Abstracts p. 149
10:45-11:15	Hakim Boumaza (Université Paris 13 - LAGA, France) Localization for an Anderson-Bernoulli Operator with Generic Interaction Potential	Abstracts p. 148
11:15-11:45	Helge Krueger (Rice / ESI, USA) Positive Lyapunov Exponent for Ergodic Schroedinger Operators	Abstracts p. 149
11:45-12:15	Tobias Jaeger (TU Dresden, Germany) Non-Uniformly Hyperbolic Dynamics for Quasiperiodic Non-Linear Cocycles	Abstracts p. 149

Special Session 36	Reaction Diffusion Systems Organized by: Julian Lopez-Gomez	Location POT 151
10:15-10:45	Takayoshi Ogawa (Tohoku University, Japan) The Critical Case for the Drift-Diffusion System of Degenerate Type	Abstracts p. 156
10:45-11:15	Sze-Bi Hsu (National Tsing-Hua University, Taiwan) On a Mathematical Model Arising from Competition of Phytoplankton Species for a Single Nutrient with Internal Storage: Steady State Analysis	Abstracts p. 155
11:15-11:45	Julian Lopez-Gomez (Universidad Complutense de Madrid, Spain) The Theorem of Characterization of the Maximum Principle	Abstracts p. 155

Special Session 38	Navier-Stokes Equations and Related Problems Organized by: Reinhard Farwig, Jiri Neustupa, Werner Varnhorn	Location HSZ 204
10:15-10:45	Wojciech Zajackowski (PAN and Military Univ. of Warsaw, Poland) Global Regular Solutions to the Navier-Stokes Equations with Large Flux	Abstracts p. 165
10:45-11:15	Zdeněk Skálák (Czech Academy of Sciences, Czech Republic) Asymptotic Energy Concentration in Solutions to the Navier-Stokes Equations	Abstracts p. 165
11:15-11:45	Petr Kucera (Czech Technical University, Czech Republic) A Note on Navier-Stokes Equations with Mixed Boundary Conditions	Abstracts p. 164

Special Session 41	Phase Field Methods in Material Sciences Organized by: Arnaud Rougirel, Appolinaire Abourou Ella	Location HSZ 405
10:15-10:45	Pavel Krejčí (Institute of Mathematics ASCR, Czech Republic) Phase Transitions in Water	Abstracts p. 178
10:45-11:15	Nicolas Lecoq (UMR 6634 CNRS, University of Rouen, France) Fast Spinodal Decomposition in a Binary System: Analysis of the Time-Evolution of the Structure Factor	Abstracts p. 178
11:15-11:45	Morgan Pierre (University of Poitiers, France) A Finite Element Discretization of the Cahn-Hilliard Equation with Dynamic Boundary Conditions	Abstracts p. 179

Special Session 43	Recent advances on bifurcation problems Organized by: Andre Vanderbauwhede, Wolf-Juergen Beyn, Reiner Lauterbach	Location WIL A221
10:15-10:45	Ale Jan Homburg (University of Amsterdam, Netherlands) Bifurcations from Homoclinic Networks	Abstracts p. 187
10:45-11:15	Jürgen Knobloch (TU Ilmenau, Germany) Nonreversible Homoclinic Snaking	Abstracts p. 187
11:15-11:45	Thomas Wagenknecht (University of Leeds, England) Multipulses in the Swift-Hohenberg Equation	Abstracts p. 188

Special Session 45	Evolution Equations and Mathematical Biology Organized by: Jozsef Z. Farkas, Peter Hinow	Location WIL B321
10:15-10:45	David Greenhalgh (University of Strathclyde, Scotland) Mathematical Models for Pneumococcal Spread Taking into Account Serotypes and Sequence Types	Abstracts p. 196
10:45-11:15	Peter Simon (Eötvös Loránd University, Budapest, Hungary) Exact Epidemic Models on Graphs Using Graph Automorphism Driven Lumping	Abstracts p. 199
11:15-11:45	Burcu Adivar (Izmir University of Economics, Turkey) Compartmental Disease Transmission Models for Smallpox	Abstracts p. 193
11:45-12:15	Laurent Pujo-Menjouet (University of Lyon, France) A Mathematical Analysis of Prion Proliferation, Application to Models in Epidemiology	Abstracts p. 198

Special Session 46	Topological Methods for Boundary Value Problems Organized by: John Graef, Jeff Webb	Location HSZ 403
10:15-10:45	Pavel Drabek (University of West Bohemia, Pilsen, Czech Rep.) Fredholm Alternative Results for the Fucik Spectrum I	Abstracts p. 201
10:45-11:15	Stephen Robinson (Wake Forest University, USA) Fredholm Alternative Results for the Fucik Spectrum II	Abstracts p. 202
11:15-11:45	John Graef (University of Tennessee at Chattanooga, USA) Uniqueness and Parameter Dependence of Positive Solutions of Third Order Boundary Value Problems with p-Laplacian	Abstracts p. 202

Special Session 48	Differential, Difference, and Dynamic Equations Organized by: Martin Bohner, Stefan Hilger, Agacik Zafer	Location WIL A120
10:15-10:45	Martin Bohner (Missouri S&T, USA) Spectral Analysis of a q-Difference Operator	Abstracts p. 208
10:45-11:15	Murat Adivar (Izmir University of Economics, Turkey) Principal Matrix Solutions and Variation of Parameters for Volterra Integro-Dynamic Equations on Time Scales	Abstracts p. 207
11:15-11:45	Elvan Akin-Bohner (Missouri S&T, USA) Oscillation Criteria for Fourth Order Nonlinear Dynamic Equations	Abstracts p. 207
11:45-12:15	Jan Cieřliński (University of Białystok, Poland) Some Implications of a New Definition of the Exponential Function on Time Scales	Abstracts p. 208

Special Session 51	Holomorphic Dynamics in the Complex Plane and Higher Dimensions Organized by: Robert L. Devaney, Xavier Jarque, Janina Kotus	Location HSZ 301
10:15-10:45	Arnaud Chéritat (CNRS, Institut de Math. de Toulouse, France) Two Theorems of Herman on Siegel Disks	Abstracts p. 219
10:45-11:15	Pascale Roesch (UPS, IMT, Toulouse, France) Periodic Slices in Parameter Space, Focus on Hyperbolic Components	Abstracts p. 222
11:15-11:45	Bogusława Karpinska (Warsaw University of Technology, Poland) Thermodynamic Formalism for Some Meromorphic Maps	Abstracts p. 220
11:45-12:15	Krzysztof Barański (University of Warsaw, Poland) Hausdorff Dimension of the Sierpiński Julia Sets	Abstracts p. 218

Special Session 54	Applied Hyperbolic and Elliptic Dynamics Organized by: Marian Gidea, Ilie Ugarcovici	Location HSZ 103
10:15-10:45	William Hooper (City College of New York, USA) Infinite Genus Surfaces Admitting Two Affine Multi-Twists	Abstracts p. 232
10:45-11:15	Yi-Chiuan Chen (Academia Sinica, Taiwan) On Topological Entropy of Billiard Tables with Small Inner Scatterers	Abstracts p. 231
11:15-11:45	William Ott (University of Houston, USA) From Limit Cycles to Strange Attractors	Abstracts p. 233
11:45-12:15	Ilie Ugarcovici (DePaul University, USA) Hyperbolic and Elliptic Behavior in Population Dynamics	Abstracts p. 234

Special Session 55	Perturbed Differential and Difference Equations Organized by: Conall Kelly, Alexandra Rodkina	Location WIL C107
10:15-10:45	Josef Diblík (Brno University of Technology, Czech Republic) Ważewski's Method for Dynamic Equations	Abstracts p. 235
10:45-11:15	Mariusz Michta (University of Zielona Gora, Poland) Fuzzy Stochastic Integral Equations	Abstracts p. 236
11:15-11:45	Jerzy Motyl (University of Zielona Gora, Poland) Differential and Stochastic Inclusions in Banach Lattices	Abstracts p. 236

Special Session 56	Spectral, Linear and Nonlinear Stability of Coherent Structures Organized by: Milena Stanislavova, Jared Bronski	Location GER 037
10:15-10:45	Bjorn Sandstede (Brown University, USA) Nonlinear Stability of Semidiscrete Shocks	Abstracts p. 239
10:45-11:15	Aaron Hoffman (Boston University, USA) Weak Interaction of Coherent Structures in Lattice Differential Equations	Abstracts p. 238
11:15-11:45	Anna Ghazaryan (University of Kansas, USA) Stability of Traveling Waves for a Class of Reaction-Diffusion Systems	Abstracts p. 238

Special Session 59	Topological Invariants in Dynamical Systems Organized by: Grzegorz Graff, Wacław Marzantowicz	Location POT 006
10:15-10:45	Jerzy Jezierski (Warsaw University of Life Sciences, Poland) Fixed Point Indices of Iterated Smooth Maps in Arbitrary Dimension	Abstracts p. 248
10:45-11:15	P. Christopher Staecker (Fairfield University, USA) Nielsen Coincidence Theory of Iterates	Abstracts p. 251
11:15-11:45	Joel Better (none at present, Spain) Wecken Theorems for N-Valued Maps	Abstracts p. 247

Special Session 61	Topological Methods for the Qualitative Analysis of Differential Equations Organized by: Marco Spadini, Pierluigi Benevieri	Location GER 054
10:15-10:45	Alfonso Vignoli (Dipartimento di Matematica, Italy) A New Spectrum of Nonlinear Operators	Abstracts p. 257
10:45-11:15	Martin Văth (Academy of Sciences of the Czech Rep.) Reaction-Diffusion Systems with Unilateral Obstacles	Abstracts p. 257
11:15-11:45	Jacobo Pejsachowicz (Politecnico di Torino, Italy) Atiyah-Singer Family Index Theorem and Bifurcation of Solutions of Nonlinear Elliptic Boundary Value Problems	Abstracts p. 256

Special Session 62	Topological and Variational Methods in Differential and Difference Equations Organized by: Feliz Minhos, Alberto Cabada	Location POT 251
10:15-10:45	Feliz Minhós (University of Évora, Portugal) Sufficient Conditions for the Solvability of Higher Order Functional Boundary Value Problems	Abstracts p. 261
10:45-11:15	Maria do Rosário Grossinho (ISEG-Technical University of Lisbon, Portugal) On the Localization of PDE Problems Arising in Financial Option Pricing	Abstracts p. 260
11:15-11:45	Petr Stehlik (University of West Bohemia, Czech Republic) Multiplicity of Solutions for Discrete Problems with Double-Well Potentials	Abstracts p. 263

Special Session 66	Discrete Integrable Systems Organized by: Stephane Lafortune, Kenichi Maruno	Location GER 039
10:15-10:45	Hidetomo Nagai (Waseda University, Japan) Ultradiscrete Analogue of Determinant Solution for Soliton Equations	Abstracts p. 278
10:45-11:15	Tomoyuki Takenawa (Tokyo University of Marine Sci. and Tech., Japan) Toropical Geometry and Integrable Ultra-Discrete Dynamical Systems	Abstracts p. 278
11:15-11:45	Daisuke Takahashi (Waseda University, Japan) On Some Particle Systems and Ultradiscretization	Abstracts p. 278

Special Session 68	Differential, Integral Equations and Their Application Organized by: Onur Alp Ilhan, Mokhtar Kirane, Nasser-eddine M Tatar	Location GER 007
10:15-10:45	Onur Alp Ilhan (Erciyes University, Turkey) On the Solvability Conditions for One Partial Integral Equation	Abstracts p. 279
11:15-11:45	Athanasios Lyberopoulos (University of the Aegean, Greece) Nonlinear Elliptic Equations with General Potentials in $\mathbb{R}^N$	Abstracts p. 280

Contributed Session 04	Modelling and Math Biology	Location HSZ 101
10:15-10:35	Marcel Hörning (Department of Physics, Kyoto University, Japan) Theory of Reentrant Wave Termination in Excitable Media -- Utilizing a Special Case of the Eikonal Relationship	Abstract p. 301
10:35-10:55	Marion Weederma (Dominican University, USA) Impact of Toxins on Anaerobic Digestion	Abstract p. 303
10:55-11:15	Nuning Nuraini (Institut Teknologi Bandung, Indonesia) Simulation of Microscale Model for Dengue Infection	Abstract p. 302
11:15-11:35	Patrick Shipman (Colorado State University, USA) A PDE Approach to Maximal Packing Motivated by Invariances in Phyllotactic Tilings	Abstract p. 303
11:35-11:55	Wenjun Zhang (University of Auckland, New Zealand) Travelling Waves in Calcium Models	Abstract p. 304
11:55-12:15	Xiuxiang Yang (Weinan Normal University, Peoples Rep. of China) Stability Analysis of an Isolation Epidemic Model with Nonlinear Incidence Rate	Abstract p. 304

Contributed Session 06	Control and Optimization	Location WIL C307
10:35-10:55	Ellina Grigorieva (Texas Woman's University, USA) Optimal Control of Pollutant Stock as Hierarchical Differential Game between Manufacturer and the State	Abstract p. 306
10:55-11:15	Yaw Chang (UNC-Wilmington, USA) A Special Generalized Network Polyhedron Arising from Eco-Development	Abstract p. 306
11:15-11:35	Carsten Collon (Technische Universität Dresden, Germany) Invariant Feedback Design for Control Systems with Lie Symmetries: A Kinematic Car Example	Abstract p. 306
11:35-11:55	Elena Kostousova (Russian Academy of Sciences, Ekaterinburg, Russia) On Polyhedral Estimates for Trajectory Tubes of Dynamical Discrete-Time Systems with Multiplicative Uncertainty	Abstract p. 307
11:55-12:15	Gautier Picot (Institut of Mathematics of Burgundy, France) Optimal Earth-Moon Transfers Using Low-Propulsion	Abstract p. 308

Contributed Session 09	PDEs and Applications	Location WIL C133
10:15-10:35	Volker Reitmann (St. Petersburg State University, Russia) Frequency-Domain Conditions for the Existence of Almost-Periodic Solutions in Coupled PDEs	Abstract p. 323
10:35-10:55	Scott McCalla (Brown University, USA) Radial Solutions and the Cessation of Snaking for the Multi-Dimensional Swift-Hohenberg Equation	Abstract p. 320
10:55-11:15	Sharif Guseynov (Inst. of Math. Sci. and Inf. Techn., Riga, Latvia) On Analytical Solutions of Some Continuous Models for Determining the Volumes of Current Supplies of Divisible Productions	Abstract p. 318
11:15-11:35	Tatiana Ryabukha (Institute for Mathematics NASU, Ukraine) Application of BBGKY Hierarchies for Description of Infinitely Many Particles	Abstract p. 324
11:35-11:55	Kheirollah Sepahvand (TU Dresden, Germany) Stochastic Inverse Method for Uncertain Coefficient Identification in PDEs from Experimental Data Using Polynomial Chaos Expansi	Abstract p. 325
11:55-12:15	Kheirollah Sepahvand (TU Dresden, Germany) Application of Generalized Polynomial Chaos Expansion in Stochastic Partial Differential Equations	Abstract p. 325

Lunch break	Mensa Bergstraße
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P.M. (1)

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Special Session 02	Dynamics in Neuronal Networks Organized by: Qishao Lu, Jianzhong Su, Kiyoyuki Tchizawa	Location HSZ 304
14:00-14:30	Kiyoyuki Tchizawa (Institute of Administration Engineering, Japan) On 4-Dimensional Duck Solution with Relative Stability	Abstracts p. 17
14:30-15:00	Zhaosheng Feng (University of Texas-Pan American, USA) Fold-Hopf Bifurcations of the Rose-Hindmarsh-Type Model	Abstracts p. 15
15:00-15:30	Katarina Bodova (Comenius University, Slovak Republic) Noise-Induced Firing and Quiescence in a Hodgkin-Huxley Model	Abstracts p. 15

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Special Session 03	Dynamics of Chaotic and Complex Systems Organized by: Jose M. Amigo, Miguel A. F. Sanjuan	Location POT 051
13:30-14:00	Marian Gidea (Northeastern Illinois University, USA) Weak Stability Boundary and Invariant Manifolds	Abstracts p. 22
14:00-14:30	Roberto Monetti (MPI Institute for Extraterrestrial Phys., Germany) Recurrence Analysis of Transcription Symbols to Quantify Coupling between Time Series	Abstracts p. 24
14:30-15:00	Grzegorz Litak (Lublin University of Technology, Poland) Identification of Chaos in Systems with Non-Continuities and Memory by the 0-1 Test	Abstracts p. 22
15:00-15:30	Ezequiel Del Rio (ETSI Aeronauticos UPM, Spain) A General Characteristic Relation for Type-II and -III Intermittencies	Abstracts p. 21

Special Session 06	Continuous and Discrete Dynamical Systems in Physics Organized by: Atanas Stefanov, Dmitry Pelinovsky	Location POT 112
13:30-14:00	Guido Schneider (Universität Stuttgart, Germany) Bounds for the Nonlinear Schrödinger Approximation of the Fermi-Pasta-Ulam-System	Abstracts p. 40
14:00-14:30	Johannes Giannoulis (TU München, Germany) Rigorous Justification of Effective Dynamics in Lattices	Abstracts p. 38
14:30-15:00	Tiziano Penati (University of Milan, Italy) Continuous Approximation of Breathers in One and Two Dimensional Lattices	Abstracts p. 39
15:00-15:30	Simone Paleari (Università di Milano, Italy) From Breathers to Q-Breathers in the Finite DNLS Lattice	Abstracts p. 39

Special Session 11	New Developments in Qualitative Behavior of Nonlinear Evolutionary PDEs Organized by: Irena Lasiecka, Grozdana Todorova	Location GER 052
14:00-14:30	Barbara Kaltenbacher (University of Graz, Austria) Some Well-Posedness and Exponential Decay Results in Nonlinear Acoustics	Abstracts p. 55
14:30-15:00	Enzo Vitillaro (Università degli Studi di Perugia, Italy) On the Wave Equation with Second Order Dynamical Boundary Conditions	Abstracts p. 58
15:00-15:30	Philip Graber (University of Virginia, USA) Global Well-Posedness for a Hyperbolic Equation with Nonlinear Acoustic Boundary Conditions	Abstracts p. 54

Special Session 16	Traveling Waves in Reaction-Diffusion Equations: Theory and Applications Organized by: Francois Hamel, Masaharu Taniguchi	Location GER 009
13:30-14:00	Arnd Scheel (University of Minnesota, USA) Existence of Dislocations in a Swift-Hohenberg Equation	Abstracts p. 78
14:00-14:30	Lionel Roques (INRA - BIOSP, France) Increasing Rates of Spread in KPP Equations	Abstracts p. 77
14:30-15:00	Kota Ikeda (Meiji Inst. for Adv. Study of Math. Sci., Japan) Reflection of a Traveling Wave in a Combustion Model	Abstracts p. 76
15:00-15:30	Gregoire Nadin (CNRS and Paris 6, France) Asymptotic Spreading in General Heterogeneous Media	Abstracts p. 76

Special Session 20	Topological Dynamics Organized by: Piotr Oprocha, Francisco Balibrea Gallego, Victor Jimenez Lopez, Lluís Alseda i Soler	Location POT 361
14:00-14:30	Jose Cánovas (Universidad Politécnica de Cartagena, Spain) On the Relationship between the Asymptotic Behavior of a Convergent Non-Autonomous System and Its Limit Map	Abstracts p. 92
14:30-15:00	Pawel Wilczynski (Jagiellonian University, Cracow, Poland) Distributional Chaos in Planar Nonautonomous ODEs	Abstracts p. 94
15:00-15:30	Jozef Bobok (Technical University in Prague, Czech Republic) Code and Order Equivalence in Polygonal Billiards	Abstracts p. 92

Special Session 22	Spatially Structured Oscillations and Waves in Neural Media Organized by: Stephen Coombes, Paul Bressloff	Location WIL C203
14:00-14:30	Carlo Laing (Massey University, New Zealand) Bumps and Chimeras	Abstracts p. 101
14:30-15:00	Stephen Coombes (University of Nottingham, England) Neural Fields with Sigmoidal Firing Rates: Approximate Solutions	Abstracts p. 100
15:00-15:30	Martin Golubitsky (MBI / Ohio State University, USA) Symmetry and Time-Periodic Geometric Visual Hallucinations	Abstracts p. 100

Special Session 26	Nonsmooth Dynamical Systems Analysis, Modeling and Numerical Techniques Organized by: Bernard Brogliato, Joachim Gwinner, Lionel Thibault	Location HSZ 401
13:30-14:00	Jong-Shi Pang (University of Illinois, USA) Linear-Quadratic Optimal Control with Lipschitz State and Costate Trajectories: Existence and a Unified Numerical Scheme	Abstracts p. 119
14:00-14:30	Scott Greenhalgh (University of Guelph, Canada) Network Problems, Dynamic Games and Hybrid Dynamical Systems	Abstracts p. 117
14:30-15:00	Guillaume James (Grenoble University and CNRS, France) Nonlinear Waves in Granular Chains	Abstracts p. 117
15:00-15:30	Marion Lebellego (Université Paul Sabatier Toulouse, France) Periodic Traveling Waves in the Burridge-Knopoff Model	Abstracts p. 118

Special Session 27	Computational Dynamics Organized by: Michael Dellnitz, Oliver Junge, Kathrin Padberg-Gehle	Location POT 106
14:00-14:30	Roland Ketzmerick (TU Dresden, Germany) Universality of Algebraic Decays in Hamiltonian Systems?	Abstracts p. 121
14:30-15:00	Sina Ober-Blöbaum (University of Paderborn, Germany) Computation of Optimally Controlled Trajectories Using Invariant Manifolds and Symmetries	Abstracts p. 122
15:00-15:30	Pablo Aguirre (University of Bristol, England) Computation of Two-Dimensional Invariant Manifolds at a Shilnikov Bifurcation	Abstracts p. 120
16:00-16:30	Mirko Hessel-von Molo (University of Paderborn, Germany) The Computation of Invariant Sets Via Newton's Method	Abstracts p. 121

Special Session 32	Evolutionary Partial Differential Equations: Theory and Applications Organized by: Rainer Picard, Michael Reissig, Karen Yagdjian	Location POT 013
14:00-14:30	Alex Himonas (University of Notre Dame, USA) On the Well-Posedness of the CH Equation	Abstracts p. 141
14:30-15:00	David Karapetyan (University of Notre Dame, USA) Sharp Well-Posedness for the Hyperelastic Rod Equation	Abstracts p. 141
15:00-15:30	Frank Jochmann (TU-Berlin, Germany) On Bean's Critical State Model for Type-II Superconductors	Abstracts p. 141

Special Session 33	Operator Semigroups and Applications Organized by: Horst Thieme, Jürgen Voigt	Location WIL C129
14:00-14:30	Stephen Schecter (North Carolina State University, USA) (given by Y. Latushkin) Stability of Fronts	Abstracts p. 147
14:30-15:00	Michael Dreher (University of Konstanz, Germany) Douglis-Nirenberg Systems and Analytic Semigroups	Abstracts p. 145
15:00-15:30	András Bátkai (Universität Siegen, Germany) Operator Splitting and Product Formulas	Abstracts p. 144

Special Session 34	Dynamical Systems and Spectral Theory of Ergodic Operators Organized by: Daniel Lenz, Peter Stollmann	Location WIL A124
14:00-14:30	Russell Johnson (Università di Firenze, Italy) Generalized Reflectionless Potentials and the Camassa-Holm Equation	Abstracts p. 149
14:30-15:00	Arkady Kitover (Community College of Philadelphia, USA) Some Spectral Properties of Weighted Composition Operators Induced by Ergodic Transformations	Abstracts p. 149
15:00-15:30	Gerald Teschl (University of Vienna, Austria) Asymptotics for the Toda Flow	Abstracts p. 150

Special Session 36	Reaction Diffusion Systems Organized by: Julian Lopez-Gomez	Location POT 151
13:30-14:00	Toshitaka Nagai (Hiroshima University, Japan) A Parabolic-Elliptic System of Drift-Diffusion Type in Two Dimensions with Subcritical Initial Data	Abstracts p. 156
14:00-14:30	Fabio Zanolin (University of Udine, Italy) Multiplicity Results for Nonlinear Differential Equations with Indefinite Weight	Abstracts p. 158
14:30-15:00	Yuan Lou (Ohio State University, USA) Non-Random Dispersal of Interacting Species in Heterogeneous Landscapes	Abstracts p. 155
15:00-15:30	Robert Stephen Cantrell (University of Miami, USA) Approximating the Ideal Free Distribution Via Reaction-Diffusion-Advection Equations	Abstracts p. 154

Special Session 38	Navier-Stokes Equations and Related Problems Organized by: Reinhard Farwig, Jiri Neustupa, Werner Varnhorn	Location HSZ 204
13:30-14:00	Lars Diening (University of Freiburg, Germany) L^q Gradient Estimates for Non-Newtonian Fluids	Abstracts p. 163
14:00-14:30	Miroslav Bulíček (Charles University, Prague, Czech Republic) On Existence Analysis for Unsteady Flow of Incompressible Fluids with Implicit Constitutive Relation for Cauchy Stress in Orlicz Space Setting	Abstracts p. 162
14:30-15:00	Bernard Nowakowski (Polish Academy of Sciences, Poland) Global Special Solutions to the Micropolar Fluid Equations	Abstracts p. 164
15:00-15:30	Ivan Straskraba (Academy of Sciences, Prague, Czech Republic) The Flow of a Liquid with Cavitation	Abstracts p. 165

Special Session 41	Phase Field Methods in Material Sciences Organized by: Arnaud Rougirel, Appolinaire Abourou Ella	Location HSZ 405
13:30-14:00	Vladimir Varlamov (University of Texas - Pan American, USA) Global Solutions for the Cahn-Hilliard-Type Equation	Abstracts p. 180
14:00-14:30	Bang-Gui Liu (Inst. of Physics, Academy of Sciences, PR China) Phase Transitions and Nanoscale Phase Dynamics of Semiconductor Reconstructed Surfaces	Abstracts p. 179
14:30-15:00	Svetlin Georgiev (Sofia University, Bulgaria) Global Existence for a Class Higher-Order Parabolic Equations	Abstracts p. 178
15:00-15:30	Juan Vicente Gutiérrez-Santacreu (University of Seville, Spain) Numerical Analysis for a Solidification Phase-Field Model	Abstracts p.

Special Session 43	Recent advances on bifurcation problems Organized by: Andre Vanderbauwhede, Wolf-Juergen Beyn, Reiner Lauterbach	Location WIL A221
13:30-14:00	Thorsten Huels (Bielefeld University, Germany) Computing Dichotomy Projectors and Sacker-Sell Spectra in Discrete Time Dynamical Systems	Abstracts p. 187
14:00-14:30	Jorge Galan-Vioque (University of Sevilla, Spain) Stability of Solutions of a PDE by Numerical Continuation: Application to the Dynamics and Bifurcation of a Partially Follower Loaded Viscoelastic Beam	Abstracts p. 186
14:30-15:00	Willy Govaerts (Ghent University, Belgium) Study of a Dynamical Model for the Cell Cycle of Budding Yeast	Abstracts p. 186
15:00-15:30	Virginie De Witte (Ghent University, Belgium) Computation of Normal Form Coefficients by Automatic Differentiation in MatCont and MatContM	Abstracts p. 185

Special Session 45	Evolution Equations and Mathematical Biology Organized by: Jozsef Z. Farkas, Peter Hinow	Location WIL B321
14:00-14:30	Ami Radunskaya (Claremont Colleges, Pomona College, USA) The Detrimental Effect of Parametric Noise in Models of Population Growth	Abstracts p. 199
14:30-15:00	Jean Clairambault (INRIA, France) Cell Proliferation and Circadian Rhythm	Abstracts p. 195
15:00-15:30	Anna Marciniak-Czochra (University of Heidelberg, Germany) Mathematical Models of Discrete and Continuous Cell Differentiation	Abstracts p. 197

Special Session 46	Topological Methods for Boundary Value Problems Organized by: John Graef, Jeff Webb	Location HSZ 403
13:30-14:00	Miroslav Bartusek (Masaryk University, Brno, Czech Republic) Asymptotic Properties of Solutions of Second Order Differential Equations with Delay	Abstracts p. 200
14:00-14:30	Abdulkadir Dogan (Nigde University, Turkey) Higher Order Semipositone Multi-Point Boundary Value Problems on Time Scales	Abstracts p. 201
14:30-15:00	Feliz Minhós (University of Évora, Portugal) Periodic Solutions for Some Nonlinear Fully Fourth Order Differential Equations	Abstracts p. 202
15:00-15:30	Daniel Franco (Universidad Nacional de Educ. a Dist., Spain) Existence Results for Systems of Second Order Differential Equations	Abstracts p. 201

Special Session 48	Differential, Difference, and Dynamic Equations Organized by: Martin Bohner, Stefan Hilger, Agacik Zafer	Location WIL A120
14:00-14:30	Ağacık Zafer (Middle East Technical University, Turkey) Oscillation of Even Order Nonlinear Delay Dynamic Equations on Time Scales	Abstracts p. 211
14:30-15:00	Katja Setzer (University of Ulm, Germany) Riccati-Asymptotics for Sturm-Liouville Equations Via Ehrling's Lemma	Abstracts p. 210
15:00-15:30	Abdullah Özbekler (Atılım University, Turkey) Oscillation Criteria for Second Order Mixed Nonlinear Differential Equations with Positive and Negative Coefficients	Abstracts p. 210

Special Session 51	Holomorphic Dynamics in the Complex Plane and Higher Dimensions Organized by: Robert L. Devaney, Xavier Jarque, Janina Kotus	Location HSZ 301
14:00-14:30	Helena Mihaljevic-Brandt (Christian-Albrechts-Universität zu Kiel, Germany) Linearizers of Entire Functions I	Abstracts p. 221
14:30-15:00	Jörn Peter (University of Kiel, Germany) Linearizers of Entire Functions II	Abstracts p. 222
15:00-15:30	Lasse Rempe (University of Liverpool, England) Density of Hyperbolicity in Spaces of Real Transcendental Entire Functions	Abstracts p. 222

Special Session 56	Spectral, Linear and Nonlinear Stability of Coherent Structures Organized by: Milena Stanislavova, Jared Bronski	Location GER 037
13:30-14:00	Mariana Haragus (Universite de Franche-Comte, France) Transverse Stability of Periodic Waves	Abstracts p. 238
14:00-14:30	J. Douglas Wright (Drexel University, USA) Interaction Manifolds in Planar Reaction Diffusion Systems	Abstracts p. 240
14:30-15:00	Joceline Lega (University of Arizona, USA) Reverse Draining of a Magnetic Soap Film	Abstracts p. 239
15:00-15:30	Aslihan Demirkaya (University of Kansas, USA) Conditional Stability Theorem for the One Dimensional Klein-Gordon Equation	Abstracts p. 238

Special Session 59	Topological Invariants in Dynamical Systems Organized by: Grzegorz Graff, Wacław Marzantowicz	Location POT 006
13:30-14:00	Marco Spadini (Università di Firenze, Italy) A Set of Axioms for the Degree of a Tangent Vector Field on Differentiable Manifolds	Abstracts p. 251
14:00-14:30	Wojciech Kryszewski (Nicholas Copernicus University, Torun, Poland) On a Generalized Poincaré-Hopf Formula in Infinite Dimension	Abstracts p. 249
14:30-15:00	Robert Skiba (Nicolaus Copernicus University, Poland) The Fuller Index and Bifurcation Points	Abstracts p. 250
15:00-15:30	Aleksander Cwiszewski (Nicolaus Copernicus University, Torun, Poland) The Fuller Index and Bifurcation Points	Abstracts p. 248

Special Session 61	Topological Methods for the Qualitative Analysis of Differential Equations Organized by: Marco Spadini, Pierluigi Benevieri	Location GER 054
13:30-14:00	Massimo Villarini (Universita di Modena e Reggio Emilia, Italy) Visibility of Critical Points of Functionals from Finite-Dimensional Approximations	Abstracts p. 257
14:00-14:30	Carlota Rebelo (Universidade de Lisboa, Portugal) Persistence in Seasonally Forced Epidemiological Systems	Abstracts p. 257
14:30-15:00	Antonio Ureña (University of Granada, Spain) Lower and Upper Solutions in Periodic Second Order Equations Always Lead to Instability	Abstracts p. 257
15:00-15:30	Alessandro Margheri (Universidade de Lisboa, Portugal) Generalized Synchronization in Linearly Coupled Time-Periodic Systems	Abstracts p. 256

Special Session 62	Topological and Variational Methods in Differential and Difference Equations Organized by: Feliz Minhos, Alberto Cabada	Location POT 251
13:30-14:00	Christian Poetsche (Munich University of Technology, Germany) A Functional-Analytical Approach to the Asymptotics of Recursions	Abstracts p. 262
14:00-14:30	Ricardo Enguiça (ISEL, Portugal) Heteroclinics for Some Equations Involving the p-Laplacian	Abstracts p. 259
14:30-15:00	Petru Jebelean (West University of Timisoara, Romania) Radial Solutions for Boundary Value Problems Involving the Mean Curvature Operator in Minkowski Space	Abstracts p. 261
15:00-15:30	Jan Tomeček (Palacky University in Olomouc, Czech Republic) Asymptotically Autonomous Second Order Differential Equations	Abstracts p. 263

Special Session 66	Discrete Integrable Systems Organized by: Stephane Lafortune, Kenichi Maruno	Location GER 039
13:30-14:00	Anton Dzhamay (University of Northern Colorado, USA) Spectral Curves and the Lagrangian Description of Discrete Integrable Systems	Abstracts p. 276
14:00-14:30	Andrew Hone (University of Kent, UK, England) Lax Pairs and Spectral Curves for Somos Sequences	Abstracts p. 277
14:30-15:00	Claire Gilson (Glasgow University, Scotland) On the Noncommutative and Discrete BKP Equations	Abstracts p. 276
15:00-15:30	Jarmo Hietarinta (University of Turku, Finland) Hirota's Direct Method and the Three-Soliton Condition	Abstracts p. 277

Special Session 68	Differential, Integral Equations and Their Application Organized by: Onur Alp Ilhan, Mokhtar Kirane, Nasser-eddine M Tatar	Location GER 007
13:30-14:00	Eduardo Cuesta (University of Valladolid, Spain) Volterra Equations and Anisotropic Image Denoising	Abstracts p. 279
14:00-14:30	Nasser-Eddine Tatar (King Fahd University, Saudi Arabia) Slow Down of the Decay in Viscoelasticity	Abstracts p. 281
14:30-15:00	Goro Akagi (Shibaura Institute of Technology, Japan) On Some Parabolic Equations Involving $p(x)$-Laplacian	Abstracts p. 279
15:00-15:30	Piotr Kasprzak (Adam Mickiewicz University, Poznan, Poland) On Operators of Higher Order and Their Application to Non-Linear Differential and Integral Equations	Abstracts p. 280

Contributed Session 06	Control and Optimization	Location WIL C307
13:50-14:10	Sergey Yunusov (Transport and Telecomm. Institute, Riga, Latvia) New Regularizing Approach to Determining the Influence Coefficient Matrix for Gas-Turbine Engines	Abstract p. 308
14:10-14:30	Sergiy Zhuk (INRIA Paris-Rocquencourt, France) Inverse Problems for Linear Ill-Posed Equations with Uncertain Parameters	Abstract p. 308
14:30-14:50	Tadeusz Kwater (University of Rzeszow, Poland) Simulation of Diffusion Experiments in Environment Water Polluted	Abstract p. 307
14:50-15:10	Tatiana Filippova (Russian Academy of Sciences, Russia) Differential Equations of Ellipsoidal State Estimates in Nonlinear Control Problems under Uncertainty	Abstract p. 306

Contributed Session 09	PDEs and Applications	Location WIL C133
14:10-14:30	Alexander Komech (Vienna Univ. and IITP RAS (Moscow), Austria) On Global Attractors of Nonlinear Hyperbolic PDEs	Abstract p. 319
14:30-14:50		
14:50-15:10	Shadan Sadigh Behzadi (Islamic Azad University, Tehran, Iran) The Use of Modified Variational Iteration and Homotopy Analysis Methods for Solving the Burger's-Fisher Equation	Abstract p. 315
15:10-15:30	Anvar Juraev (Samarkand State University, Uzbekistan) Noncommutative Fields and Actions of Twisted Poincare Algebra	Abstract p. 318

Coffee break	
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Friday, May 28**P.M. (2)****Sessions**

Special Session 02	Dynamics in Neuronal Networks Organized by: Qishao Lu, Jianzhong Su, Kiyoyuki Tchizawa	Location HSZ 304
16:00-16:30	Hiroyuki Kitajima (Kagawa University, Japan) Electric Alternans in a Mathematical Model of Ventricular Muscle	Abstracts p. 16
16:30-17:00	Xiaohui Wang (University of Texas-Pan American, USA) Hierarchical Modeling of Dynamic Functions with Labeling or Time-To-Event Outcomes	Abstracts p. 17
17:00-17:30	Zbigniew Gomolka (University of Rzeszow, Poland) Improvement of Image Processing by Using Homogeneous Neural Networks with Fractional Derivatives Theorem	Abstracts p. 15

Special Session 03	Dynamics of Chaotic and Complex Systems Organized by: Jose M. Amigo, Miguel A. F. Sanjuan	Location POT 051
16:00-16:30	Arnaud Meyroneinc (Inst. Venezolano de Invest. Científicas, Venezuela) Bifurcation Control of Deterministic Recurrent Iterated Function Systems Specified by Open Regulatory Networks	Abstracts p. 23
16:30-17:00	Konstantin Starkov (Instituto Politecnico Nacional, Mexico) Bounds for Compact Invariant Sets of Nonlinear Systems Possessing First Integrals with Applications to Hamiltonian Systems	Abstracts p. 26

Special Session 11	New Developments in Qualitative Behavior of Nonlinear Evolutionary PDEs Organized by: Irena Lasiecka, Grozdana Todorova	Location GER 052
16:00-16:30	Zhoude Shao (Millersville University of Pennsylvania, USA) Existence and Continuity of Strong Solutions of Partly Dissipative Reaction Diffusion Systems	Abstracts p. 57
16:30-17:00	Michael Roberts (The University of Tokyo, USA) Decay Estimates for Nonlinear Wave Equations with Variable Coefficients	Abstracts p. 57
17:00-17:30	Grozdana Todorova (University of Tennessee, USA) Diffusion Phenomenon in Hilbert Spaces and Applications	Abstracts p. 58

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Special Session 16	Traveling Waves in Reaction-Diffusion Equations: Theory and Applications Organized by: Francois Hamel, Masaharu Taniguchi	Location GER 009
16:00-16:30	Bjorn Sandstede (Brown University, USA) Bound States of Coherent Structures on Circles	Abstracts p. 77
16:30-17:00	Tohru Wakasa (Meiji University, Japan) Traveling Waves for a Reaction-Diffusion Model for Tumour Growth with Contact Inhibition	Abstracts p. 78
17:00-17:30	Hiroshi Matsuzawa (Numazu National College of Technology, Japan) Dynamics of a Front Solution for a Bistable Reaction-Diffusion Equation with a Degenerate Spatial Heterogeneity	Abstracts p. 76
17:30-18:00	Ming Mei (Champlain College and McGill University, Canada) Global Stability of Monostable Traveling Waves for Nonlocal Time-Delayed Reaction-Diffusion Equations	Abstracts p. 76

Special Session 20	Topological Dynamics Organized by: Piotr Oprocha, Francisco Balibrea Gallego, Victor Jimenez Lopez, Lluís Alseda i Soler	Location POT 361
16:00-16:30	Krystyna Kuperberg (Auburn University, USA) An Example of a Volume Preserving Flow	Abstracts p. 92
16:30-17:00	Henk Bruin (University of Surrey, England) Combinatorics of Quadratic Julia Sets, Admissibility, Biaccessibility and Hausdorff Dimension	Abstracts p. 92

Special Session 22	Spatially Structured Oscillations and Waves in Neural Media Organized by: Stephen Coombes, Paul Bressloff	Location WIL C203
16:00-16:30	Olivier Faugeras (INRIA Sophia-Antipolis/ENS Paris, France) Neural Masses and Neural Fields for Texture Perception	Abstracts p. 100
16:30-17:00	Helmut Schmidt (University of Nottingham, England) Interface Dynamics in 2D Neural Field Models	Abstracts p. 101
17:00-17:30	Liejune Shiau (University of Houston, USA) Oscillations in Pulse-Coupled Adaptive Exponential Integrate-And-Fire Neurons	Abstracts p. 101

Special Session 26	Nonsmooth Dynamical Systems Analysis, Modeling and Numerical Techniques Organized by: Bernard Brogliato, Joachim Gwinner, Lionel Thibault	Location HSZ 401
16:00-16:30	Krzysztof Bartosz (Jagiellonian University, Kraków, Poland) Numerical Solution for Contact Problem with Nonmonotone Friction	Abstracts p. 116
16:30-17:00	Piotr Kalita (Jagiellonian University, Kraków, Poland) Method of Rothe for Parabolic Hemivariational Inequalities	Abstracts p. 118
17:00-17:30	Stanisław Migórski (University of Krakow, Poland) Quasistatic Viscoelastic and Thermoviscoelastic Contact Models	Abstracts p. 119
17:30-18:00	Joachim Gwinner (Universität der Bundeswehr Muenchen, Germany) Towards Efficient Solution of Nonsmooth Dynamical Systems	Abstracts p. 117

Special Session 27	Computational Dynamics Organized by: Michael Dellnitz, Oliver Junge, Kathrin Padberg-Gehle	Location POT 106
16:30-17:00	Zin Arai (Hokkaido University, Japan) Rigorous Verification of Global Properties of Dynamical Systems	Abstracts p. 120
17:00-17:30	Janosch Rieger (Goethe-Universität Frankfurt, Germany) An Implicit Numerical Method for Differential Inclusions	Abstracts p. 122

Special Session 32	Evolutionary Partial Differential Equations: Theory and Applications Organized by: Rainer Picard, Michael Reissig, Karen Yagdjian	Location POT 013
16:00-16:30	Dirk Pauly (University of Duisburg-Essen, Germany) Hodge-Helmholtz Decompositions of Weighted Sobolev Spaces	Abstracts p. 142
16:30-17:00	Wolfgang Ruess (Universität Duisburg-Essen, Germany) Flow Invariance for Nonlinear Partial Differential Delay Equations	Abstracts p. 142
17:00-17:30	Lavi Karp (ORT Braude College, Israel) Einstein-Euler Systems with Polytropic Equations of State	Abstracts p. 141
17:30-18:00	Karen Yagdjian (University of Texas-Pan American, USA) On the Global Solutions of the Semilinear Hyperbolic Equations in the Friedmann-Robertson-Walker Spacetimes	Abstracts p. 143

Special Session 33	Operator Semigroups and Applications Organized by: Horst Thieme, Jürgen Voigt	Location WIL C129
16:00-16:30	Hendrik Vogt (TU Dresden, Germany) Heat Kernel Estimates and Interpolation Inequalities	Abstracts p. 148
16:30-17:00	Pierre Magal (University of Bordeaux, France) Bifurcation Problems for Structured Population Dynamics Models	Abstracts p. 146
17:00-17:30	Shigui Ruan (University of Miami, USA) Hopf Bifurcation for Non-Densely Defined Cauchy Problems	Abstracts p. 147
17:30-18:00	Horst Thieme (Arizona State University, USA) Differentiability of Convolutions, Integrated Semigroups of Bounded Semi-Variation, and the Inhomogeneous Cauchy Problem	Abstracts p. 147

Special Session 34	Dynamical Systems and Spectral Theory of Ergodic Operators Organized by: Daniel Lenz, Peter Stollmann	Location WIL A124
16:00-16:30	Matthias Keller (Friedrich Schiller University Jena, Germany) Stability of Absolutely Continuous Spectrum under Random Perturbations on Trees	Abstracts p. 149
16:30-17:00	Mira Shamir (Hebrew University, Israel) Preservation of Absolutely Continuous Spectrum of Periodic Jacobi Operators under Perturbations of Square-Summable Variation	Abstracts p. 150
17:00-17:30	Christoph Richard (Erlangen University, Germany) Ergodic Properties of Randomly Coloured Point Sets	Abstracts p. 150
17:30-18:00	Marcel Hansmann (TU Clausthal, Germany) Lieb-Thirring Type Estimates for Non-Selfadjoint Operators	Abstracts p. 149

Special Session 36	Reaction Diffusion Systems Organized by: Julian Lopez-Gomez	Location POT 151
16:00-16:30	Italo Capuzzo Dolcetta (Sapienza Università di Roma, Italy) Glaeser's Type Estimates for Viscosity Solutions of Some Nonlinear PDE's	Abstracts p. 154
16:30-17:00	Anna Maria Micheletti (Dipartimento di Matematica Applicata, Italy) On the Multiplicity of Solutions of Singularly Perturbed Elliptic Problems on Riemannian Manifolds	Abstracts p. 156
17:00-17:30	Eiji Yanagida (Tokyo Institute of Technology, Japan) Appearance of Anomalous Singularities in a Semilinear Parabolic Equation	Abstracts p. 158
17:30-18:00	Chris Cosner (University of Miami, USA) Evolution of Dispersal and the Ideal Free Distribution	Abstracts p. 154

Special Session 41	Phase Field Methods in Material Sciences Organized by: Arnaud Rougirel, Appolinaire Abourou Ella	Location HSZ 405
16:00-16:30	Gabriela Planas (Universidade Estadual de Campinas, Brazil) Irreversible Solidification with Fluid Flow	Abstracts p. 179
16:30-17:00	Arnaud Rougirel (University of Poitiers, France) Stationary Solutions to Phase Field Crystal Equations	Abstracts p. 179

Special Session 43	Recent advances on bifurcation problems Organized by: Andre Vanderbauwhede, Wolf-Juergen Beyn, Reiner Lauterbach	Location WIL A221
16:00-16:30	Stefan Liebscher (Free University Berlin, Germany) The Tumbling Universe: Dynamics of Bianchi Models in the Big-Bang Limit	Abstracts p. 188
16:30-17:00	Roland Gunesch (University Hamburg, Germany) Abundance of Periodic Orbits without Hyperbolicity	Abstracts p. 187
17:00-17:30	Paul Glendinning (University of Manchester, England) Two-Dimensional Attractors of the Border Collision Normal Form	Abstracts p. 186

Special Session 45	Evolution Equations and Mathematical Biology Organized by: Jozsef Z. Farkas, Peter Hinow	Location WIL B321
16:00-16:30	Wilson Lamb (University of Strathclyde, Scotland) Coagulation, Fragmentation and Growth Processes in a Size Structured Population	Abstracts p. 197
16:30-17:00	Jacek Banasiak (University of KwaZulu-Natal, South Africa) Structured Population Equation with Fragmentation and Coagulation: The Case of Strong Fragmentation	Abstracts p. 194
17:00-17:30	Jozsef Farkas (University of Stirling, Scotland) Existence and Stability of Steady States in Hierarchical Structured Populations with Infinite States at Birth	Abstracts p. 195

Special Session 46	Topological Methods for Boundary Value Problems Organized by: John Graef, Jeff Webb	Location HSZ 403
16:00-16:30	Mohammad Bagher Ghaemi (IUST, Iran) Application of Monotonicity Method on Some Classes of $p(x)$-Laplacian Problems	Abstracts p. 201
16:30-17:00	Wenying Feng (Trent University, Canada) Positive Solutions and Eigenvalues for a Coupled Nonlinear Fractional Differential System	Abstracts p. 201

Special Session 48	Differential, Difference, and Dynamic Equations Organized by: Martin Bohner, Stefan Hilger, Agacik Zafer	Location WIL A120
16:00-16:30	Mathias Goeggel (Missouri University of Science and Tech., Germany) Closed Form Solutions to Discrete Time Portfolio Optimization Problems	Abstracts p. 208
16:30-17:00	Natalia Martins (University of Aveiro, Portugal) Higher-Order Calculus of Variations with Hahn Quantum Derivatives	Abstracts p. 210
17:00-17:30	Rui Ferreira (Lusophone University of Hum. and Tech., Portugal) Fractional h-Difference Equations	Abstracts p. 208
17:30-18:00	Andreas Ruffing (Technische Universität München, Germany) Quantum Oscillator Equations and Basic Ghost State Functions	Abstracts p. 210

Special Session 51	Holomorphic Dynamics in the Complex Plane and Higher Dimensions Organized by: Robert L. Devaney, Xavier Jarque, Janina Kotus	Location HSZ 301
16:00-16:30	Elizabeth Russell (US Military Academy (West Point), USA) Complex Dynamics and Symbolic Dynamics	Abstracts p. 222
16:30-17:00	Monica Moreno Rocha (Centro de Investigacion en Matematicas, Mexico) A Combinatorial Description of Sierpinski Julia Sets	Abstracts p. 221
17:00-17:30	Daniel Look (St. Lawrence University, USA) Checkerboard Julia Sets	Abstracts p. 221
17:30-18:00	Paul Blanchard (Boston University, USA) Checkerboard Julia Sets II	Abstracts p. 219

Special Session 56	Spectral, Linear and Nonlinear Stability of Coherent Structures Organized by: Milena Stanislavova, Jared Bronski	Location GER 037
16:00-16:30	Stephane Lafortune (College of Charleston, USA) Linear Stability for Solutions to the Vortex Filament Equation	Abstracts p. 238
16:30-17:00	Vahagn Manukian (University of Kansas, USA) Existence and Stability of Multi-Hump Pulses in Systems with Reflection and Phase Invariance	Abstracts p. 239
17:00-17:30	Robert Marangell (University of North Carolina, USA) Stability and Instability of Kink Wave Solutions to the Sine-Gordon Equation	Abstracts p. 239

Special Session 59	Topological Invariants in Dynamical Systems Organized by: Grzegorz Graff, Wacław Marzantowicz	Location POT 006
16:00-16:30	Clementa Alonso (University of Alicante, Spain) On the Determination of the Topology of Vector Fields Singularities by the Newton Polyhedron	Abstracts p. 247
16:30-17:00	Wacław Marzantowicz (UAM Poznań, Poland) A Symmetry of Map and Periodic Points	Abstracts p. 249

Special Session 61	Topological Methods for the Qualitative Analysis of Differential Equations Organized by: Marco Spadini, Pierluigi Benevieri	Location GER 054
16:00-16:30	Andrea Gavioli (Università di Modena e Reggio Emilia, Italy) Second Order Problems with Non-Linear Boundary Conditions	Abstracts p. 255
16:30-17:00	Duccio Papini (University of Siena, Italy) Coexistence and Optimal Control Problems for a Degenerate Predator-Prey Model	Abstracts p. 256
17:00-17:30	Anatoliy Prykarpatsky (State Pedagogical University, Drohobych, Ukraine) A Solution Set Analysis of a Nonlinear Operator Equation Within the Leray-Schauder Type Fixed Point Approach	Abstracts p. 257
17:30-18:00	Pierluigi Benevieri (University of Sao Paulo, Brazil) Retarded Functional Differential Equations on Manifolds	Abstracts p. 255

Special Session 62	Topological and Variational Methods in Differential and Difference Equations Organized by: Feliz Minhos, Alberto Cabada	Location POT 251
16:00-16:30	Juan Bosco Ferreira (University of Santiago de Compostela, Spain) Well Ordered (Weakly Coupled) Lower and Upper Solutions for Differential Equations with Piecewise Constant Arguments	Abstracts p. 259
16:30-17:00	Joao Fialho (CIMA-UE, Portugal) Non Ordered Lower and Upper Solutions to Fourth Order Functional Boundary Value Problems	Abstracts p. 260
17:00-17:30	Rubén Figueroa (University of Santiago de Compostela, Spain) Coupled Fixed Points of Multivalued Operators and First-Order ODEs with State-Dependent Deviated Arguments	Abstracts p. 260
17:30-18:00	Eva Morais (CEMAPRE, Portugal) Existence Result for a Stationary Problem Arising in Option Pricing with Transaction Costs	Abstracts p. 261

Special Session 68	Differential, Integral Equations and Their Application Organized by: Onur Alp Ilhan, Mokhtar Kirane, Nasser-eddine M Tatar	Location GER 007
16:00-16:30	Magnus Magnusson (Human Behavior Lab., University of Iceland) Definition of t-Patterns and Their Detection in Behavior, Neuronal Interactions, and DNA	Abstracts p. 280
16:30-17:00	Kyril Tintarev (Uppsala University, Sweden) Co-Compact Imbeddings and Elliptic Problems with Supercritical Nonlinearities	Abstracts p. 281

Contributed Session 09	PDEs and Applications	Location WIL C133
16:00-16:20	Anvar Juraev (Samarkand State University, Uzbekistan) Matrix Equations and Trilinear Commutation Relations	Abstract p. 318
16:20-16:40	Przemysław Kamiński (Warsaw University of Technology, Poland) Applications of Finite Differences to the Study of Regularity Properties of Solutions to the Problems from Viscoplasticity Theor	Abstract p. 319
16:40-17:00	Sebastian Owczarek (Warsaw University of Technology, Poland) Existence Results for a Non-Monotone Model in Poroplasticity	Abstract p. 322