

China-Japan Mini-Workshop on Nonlinear Waves and Integrable Systems 2025

August 24–August 27, 2025
Toyama International Conference Center

August 24	Discussion
August 25	
10:20am – 11:20am	Registration
	Chair: Kouichi Toda (Toyama Prefectural University)
11:20am – 11:30am	Opening
11:30am – 12:00am	Changzheng Qu (Ningbo University) Stability of peakons and quasi-periodic solitons to the μ -type Camassa-Holm equations
	Chair: Takao Suzuki (Kindai University)
1:40pm – 2:10pm	Kanehisa Takasaki (Osaka Metropolitan University) Cauchy matrix approach and Sato Grassmannian
2:10am – 2:40pm	Yasuhiro Ohta (Kobe University) Modifications of Markov equation and their integer solutions
2:40pm – 3:10pm	Ruguang Zhou (Jiangsu Normal University) Algebro-geometric solutions of the AKNS system with space-inverse reductions
	Chair: Atsushi Nakamura (Kitasato University)
3:30pm – 4:00pm	Jing Kang (Northwest University) Dispersive revival phenomenon for integro-differential dispersive evolution equations
4:00pm – 4:30pm	Kayo Kinjo (Saitama University) Quantum dark solitons in a 1D Bose gas
4:30pm – 5:00pm	Senyu Lou (Ningbo University) The solvability of the congruence equation $10^k = 1 \pmod{9k}$ and the related infinite set of primes
	Reception
August 26	
	Chair: Saburo Kakei (Rikkyo University)
10:00am-10:30am	Da-jun Zhang (Shanghai University) Direct linearization scheme and GLM equations associated with the Lamé function: KP and reductions
10:30am-11:00am	Alexander Stokes (Waseda University) Real and imaginary roots of generalised Okamoto polynomials and partial-rogue waves in the Sasa-Satsuma equation
11:00am-11:30am	Takao Suzuki (Kindai University) An affine Weyl group action on the basic hypergeometric series arising from the q -Garnier system

1:00pm-1:30pm	Chair: Kayo Kinjo (Saitama University) Yong Chen (East China Normal University) PE-RWP: A deep learning framework for polynomial feature extraction of rogue wave patterns and peregrine waves localization
1:30pm-2:00pm	Yuki Amari (Keio University) Some non-self-dual solutions in SU(3) Yang-Mills theory
2:00pm-2:30pm	Ayako Hori (Waseda University, Keio Senior High School) Integrable discretization of the two-component Hunter-Saxton equation
2:30pm-3:00pm	Ruoxia Yao (Shaanxi Normal University) Higher order peakons and pseudo-peakons of J-K-CH type equations
3:20pm-3:50pm	Chair: Alexander Stokes (Waseda University) Xiaochuan Liu (Xi'an Jiaotong University) On the nonlinear waves of ccmKdV system and spectral analysis of the mCH equation
3:50pm-4:20pm	Kohei Higashi (Musashino University) Discretization of Nonlinear Integrable Systems with Singular Integral Terms
4:20pm-4:50pm	Masashi Hamanaka (Nagoya University) Solitons and Resonances in ASD Yang-Mills theory
4:50pm-5:20pm	Qingping Liu (China Univ. of Mining and Technology (Beijing)) Supersymmetric Gardner equation: Hirota's approach
5:30pm – 6:00pm	Yuji Kodama (Ohio State University) KP solitons and the Schottky uniformization

August 27

9:40am-10:10am	Chair: Linyu Peng (Keio University) Xingbiao Hu (AMSS, Chinese Academy of Sciences) Some New Results on Integrable Integro-differential Equations
10:10am-10:40am	Hiroshi Miki (Doshisha University) Quantum walks on oriented graphs associated with orthogonal polynomials
10:40am-11:10am	Daisuke Takahashi (Waseda University) Invitation to particle cellular automata and their relatives
11:10am	Closing
1:00pm-	Discussion

Support: JSPS Bilateral Program 120247414, KAKENHI 22K03441, 24K06852

Organizers(China Side): Xingbiao Hu (AMSS, Chinese Academy of Sciences), Qingping Liu (China University of Mining and Technology (Beijing))

Organizers(Japan Side): Kouichi Toda (Toyama Prefectural University), Ken-ichi Maruno (Waseda University), Linyu Peng (Keio University), Daisuke Takahashi (Waseda University)