China-Japan Joint Workshop on Integrable Systems 2013

Kyoto University, Kyoto, Japan

16–19 March 2013

Program

March 16 (Saturday)

9:00– 9:40	**Registration**	
9:40–10:00	**Opening**	Daisuke Takahashi, SenYue Lou
10:00–12:30	**Session 1**	Chair: Daisuke Takahashi
10:00–10:30	Satoshi Tsujimoto	Introduction to Bannai-Ito polynomials
10:30–11:00	Alexei Zhedanov	Perfect state transfer and classical orthogonal polynomials
11:00–11:30	*Coffee Break*	
11:30–12:00	YikMan Chiang	Difference Nevanlinna theories arising from special functions
12:00–12:30	ChunXia Li	Quasideterminant solutions to the q-discrete two-dimensional Toda lattice equation
12:30–14:00	**Lunch**	
14:00–16:30	**Session 2**	Chair: Ralph Willox
14:00–14:30	Hideki Kuwabara	On some particle cellular automata with stochastic parameters
14:30–15:00	Nobutaka Nakazono	Solutions to discrete Painlevé systems arising from two types of orthogonal polynomials
15:00–15:30	*Coffee Break*	
15:30–16:00	RuoXia Yao	Moving frames, invariant differential operators and the applications in PDEs
16:00–16:30	Tsuyoshi Kato	A rough analytic relation on partial differential equations
16:30–17:00	**Coffee Break**	
17:00–18:00	**Session 3**	Chair: XingBiao Hu
17:00–17:30	QingPing Liu	Behavior of Hamiltonian structures under supersymmetric reciprocal transformations
17:30–18:00	SenYue Lou	Bosonization, singularity analysis, nonlocal symmetry reductions and exact solutions of supersymmetric KdV Equation
18:30–	**Welcome Party**	

March 17 (Sunday)

9:30–10:30	**Session 4**	Chair: Kenji Kajiwara
9:30–10:00	Tetsu Masuda	A q-analogue of the higher order Painlevé type equations with $W(D_l^{(1)})$-symmetry
10:00–10:30	Hajime Nagoya	On the quantum sixth Painlevé equation
10:30–11:00	**Coffee Break**	
11:00–12:30	**Session 5**	Chair: YouJin Zhang
11:00–11:30	DaFeng Zuo	Frobenius manifolds and a new extended affine Weyl group $\widetilde{W}^{(k,k+1)}(A_l)$
11:30–12:00	RunLiang Lin	Bilinear equations for an extended KP hierarchy
12:00–12:30	Yasuhiro Ohta	BKP with 2-reduction
12:30–13:00	**Group Photo**	
13:00–14:00	**Lunch**	
14:00–16:30	**Session 6**	Chair: QingPing Liu
14:00–14:30	DaJun Zhang	Discrete Boussinesq-type equations
14:30–15:00	BaoFeng Feng	A self-adaptive moving mesh method for short pulse equation and its two-component generalization
15:00–15:30	*Coffee Break*	
15:30–16:00	Kenichi Maruno	Soliton interactions for the Benney-Luke Equation
16:00–16:30	ChangZheng Qu	Integrability, peakons and wave breaking for a generalized modified μ-CH equation
16:30–17:00	**Coffee Break**	
17:00–18:00	**Session 7**	Chair: Tetsuji Tokihiro
17:00–17:30	Ryogo Hirota	Addition formula for Pfaffians
17:30–18:00	ZuoNong Zhu	Solitons and dynamic properties of the coupled semidiscrete Hirota equation
18:30–	**Banquet**	

March 18 (Monday)

9:30–11:30	**Session 8**	Chair: SenYue Lou
9:30–10:00	Daisuke Takahashi	Initial value problem of lattice equations
10:00–10:30	Hidetomo Nagai	Discrete analogue of the periodic phase soliton solution
10:30–11:00	ZhenYa Yan	Matter-wave and rogue-wave solutions of the nonlinear Schrödinger/Gross-Pitaevskii equations with varying potentials
11:00–11:30	XingBiao Hu	Sequence transformations in terms of Pfaffians
11:30–12:30	**Poster Session**	
12:30–	**Lunch & Free Discussion**	

March 19 (Tuesday)

9:30–10:30	**Session 9**	Chair: Saburo Kakei
9:30–10:00	Tetsuji Tokihiro	Integrable equations over finite fields
10:00–10:30	Ralph Willox	Solving the ultradiscrete KdV equation over the reals: IST for cellular automata
10:30–11:00	**Coffee Break**	
11:00–12:30	**Session 10**	Chair: ChangZheng Qu
11:00–11:30	RuGuang Zhou	Integrable Rosochatius deformations of finite dimensional integrable systems
11:30–12:00	YouJin Zhang	Bihamiltonian cohomologies and integrable hierarchies
12:00–12:30	Junta Matsukidaira	Max-min-plus expressions for one-dimensional particle cellular automata obtained from fundamental diagram
12:30–13:30	**Lunch**	
13:30–15:00	**Session 11**	Chair: Junta Matsukidaira
13:30–14:00	Shuhei Kamioka	Combinatorial expression of solutions to an initial value problem of the discrete and ultradiscrete Toda lattices
14:00–14:30	Atsushi Nobe	A geometric realization of the periodic discrete Toda lattice
14:30–15:00	Kenji Kajiwara	Some explicit formulas in discrete differential geometry
15:00–15:10	**Closing**	Yoshimasa Nakamura, XingBiao Hu

Poster Session (March 18, 11:30–12:30)

1.	Yong Chen	A systemic method to construct the high order nonlocal symmetries
2.	EnGui Fan	Long-time asymptotic for the derivative nonlinear Schrödinger equation with step-like initial value
3.	Hiroyuki Ishigami	Acceleration of reorthogonalization process in inverse iteration on heterogeneous environments
4.	Shin Isojimja	On ultradiscretization with parity variables
5.	Koichi Kondo	Trigonometric and elliptic solutions of Sakaki-Kakei equations
6.	Ji Lin	$(2+1)$-dimensional analytical solutions of the combining cubic-quintic nonlinear Schrodinger equation
7.	Hiroshi Miki	On some discrete integrable systems associated with Cauchy biorthogonal polynomials
8.	Ryosuke Miyaura Atsushi Mukaihira	Spectral transformation chains for orthogonal polynomials on the unit circle
9.	Tomohiro Nakatani	Construction of a pattern formation system
10.	SuPing Qian	Study of a new modified KdV equation
11.	XianMin Qian	Variable separation approach for some differential-difference equations
12.	Hiroto Sekido	D-optimal designs and discrete integrable systems
13.	ShouFeng Shen	Group classification of differential-difference equations: Low-dimensional Lie algebras
14.	Takuma Takeuchi	An approximate approach to E-optimal designs for weighted polynomial regression by using Tchebycheff systems and orthogonal polynomials
15.	LiXin Tian	Inelastic interaction of nearly equal solitons for the gBBM equation
16.	Kouichi Toda	Topological solitons of the extended Skyrme-Faddeev model
17.	Takumi Yamamoto	A Euler-Lagrange transformation of particle celluar automata
18.	Jun Yu	Bosonization of the supersymmetric Gardner equation
19.	Tsukasa Yumibayashi	N-angulated category structure of Hirota-Miwa Equation

Invited Participants

From China

Yong Chen (East China Normal University)

YikMan Chiang (Hong Kong University of Science and Technology)

EnGui Fan (Fudan University)

BaoFeng Feng (The University of Texas-Pan American)

JingSong He (Ningbo University)

XingBiao Hu (Chinese Academy of Sciences)

ChunXia Li (Capital Normal University)

Ji Lin (Zhejiang Normal University)

RunLiang Lin (Tsinghua University)

QingPing Liu (China University of Mining and Technology)

SenYue Lou (Ningbo University)

SuPing Qian (ChangShu Institute of Technology)

XianMin Qian (Shaoxing University)

ChangZheng Qu (Ningbo University)

ShouFeng Shen (Zhejiang University Technology)

LiXin Tian (Nanjing Normal University)

ErXiao Wang (Chinese Academy of Sciences)

ZhenYa Yan (Chinese Academy of Sciences)

RuoXia Yao (Shaanxi Normal University)

Jun Yu (Shaoxing University)

DaJun Zhang (Shanghai University)

YouJin Zhang (Tsinghua University)

RuGuang Zhou (Jiangsu Normal University)

ZuoNong Zhu (Shanghai Jiao Tong University)

DaFeng Zuo (University of Science and Technology of China)

From Japan

Ryogo Hirota (Waseda University)
Hiroyuki Ishigami (Kyoto University)
Shin Isojima (Hosei University)
Masataka Iwao (Waseda University)
Kenji Kajiwara (Kyushu University)
Saburo Kakei (Rikkyo University)
Shuhei Kamioka (Kyoto University)
Tsuyoshi Kato (Kyoto University)
Masataka Kanki (The University of Tokyo)
Koichi Kondo (Doshisha University)
Hideki Kuwabara (Waseda University)
Kazuki Maeda (Kyoto University)
Kenichi Maruno (The University of Texas-Pan American)
Tetsu Masuda (Aoyama Gakuin University)
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Hiroshi Miki (Kyoto University)
Ryosuke Miyaura (Doshisha University)
Atsushi Mukaihira (Doshisha University)
Hidetomo Nagai (Tokai University)
Yoshimasa Nakamura (Kyoto University)
Tomohiro Nakatani (Waseda University)
Nobutaka Nakazono (Kyushu University)
Hajime Nagoya (Kobe University)
Michitomo Nishizawa (Hirosaki University)
Atsushi Nobe (Chiba University)
Yasuhiro Ohta (Kobe University)
Hiroto Sekido (Kyoto University)
Daisuke Takahashi (Waseda University)
Takuma Takeuchi (Kyoto University)
Kouichi Toda (Toyama Prefectural University)
Tetsuji Tokihiro (The University of Tokyo)
Satoshi Tsujimoto (Kyoto University)
Yoshihide Watanabe (Doshisha University)
Ralph Willox (The University of Tokyo)
Takumi Yamamoto (Waseda University)
Tsukasa Yumibayashi (Tokyo Metropolitan University)
Fumitaka Yura (Future University Hakodate)
Alexei Zhedanov (Donetsk Institute for Physics and Technology)

Executive Committee

China side

BaoFeng Feng (The University of Texas-Pan American)
XingBiao Hu (Chinese Academy of Sciences)
QingPing Liu (China University of Mining and Technology)
SenYue Lou (Ningbo University)
ChangZheng Qu (Ningbo University)
YouJin Zhang (Tsinghua University)
RuGuang Zhou (Jiangsu Normal University)

Japan side

Kenji Kajiwara (Kyushu University)
Saburo Kakei (Rikkyo University)
Kenichi Maruno (The University of Texas-Pan American)
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