

## 8th International Conference on Symmetries and Integrability of Difference Equations (SIDE8)

**June 22-28, 2008**

**Program**

[français](#)

[Print program \[PDF\]](#)

### Sunday, June 22, 2008

18:00	Shuttle departure from the Université de Montréal campus (Pavillon André-Aisenstadt) for the Hotel Mont-Gabriel	
19:30	Dinner	

### Monday, June 23, 2008

07:30 - 09:00	Breakfast	
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#### Session - Geometry of Discrete and Continuous Painlevé Equations

09:00 - 09:30	<b>Frank W. Nijhoff</b> (University of Leeds) <i>Similarity reduction of <math>q</math>-difference equations of KdV type and Chazy-type second-degree <math>q</math>-difference equations</i>	<a href="#">Abstract</a>
09:30 - 10:00	<b>Masatoshi Noumi</b> (Kobe University) <i>Some remarks on <math>\tau</math>-functions for discrete Painlevé equations</i>	<a href="#">Abstract</a>
10:00 - 10:30	Coffee break	
10:30 - 11:00	<b>Yasuhiro Ohta</b> (Kobe University) <i>Bäcklund transformation of Toda lattice and solution of Painlevé equation</i>	<a href="#">Abstract</a>
11:00 - 11:30	<b>Kenji Kajiwara</b> (Kyushu University) <i>Hypergeometric solutions to the Painlevé systems</i>	<a href="#">Abstract</a>

#### Session - Continuous Symmetries of Discrete Equations. Theory and Computational Applications

11:30 - 12:00	<b>Vladimir Dorodnitsyn</b> (Keldysh Institute of Applied Mathematics) <i>Non-autonomous dynamical systems and exact solutions of evolution PDEs</i>	<a href="#">Abstract</a>
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12:00 - 12:30	<b>Peter Hydon</b> (University of Surrey) <i>Conservation laws for difference equations</i>	<a href="#">Abstract</a> <a href="#">Diapos / Slides</a>
12:30 - 14:00	Lunch	
<b>Session - Continuous Symmetries of Discrete Equations. Theory and Computational Applications</b>		
14:00 - 14:30	<b>Rafael Hernandez-Heredero</b> (Universidad Politécnica de Madrid (UPM)) <i>Classification of integrable difference equations using multiscale techniques</i>	<a href="#">Abstract</a>
14:30 - 15:00	<b>Raphaël Rebêlo</b> (Université de Montréal) <i>2nd and 3rd order ODEs invariant under <math>SL(2, R)</math> and their symmetry preserving discretizations</i>	<a href="#">Abstract</a> <a href="#">Diapos / Slides</a>
15:00 - 15:30	Coffee break	
15:30 - 16:00	<b>Christian Scimiterna</b> (University Roma Tre) <i>Integrability of discrete systems via multiscale expansions</i>	<a href="#">Abstract</a> <a href="#">Diapos / Slides</a>
16:00 - 16:30	<b>Anastasios Tongas</b> (University of Crete) <i>Symmetries and reductions of integrable discrete equations on quad-graphs</i>	<a href="#">Abstract</a> <a href="#">Diapos / Slides</a>
16:30 - 17:00	<b>Jorge Enrique Lopez-Sendino</b> (Universidad de Valladolid) <i>Umbral harmonic oscillator and its symmetries</i>	<a href="#">Abstract</a>
17:00 - 17:30	<b>Sébastien Tremblay</b> (Université du Québec à Trois-Rivières) <i>Symmetries of discrete dynamical systems in a two-dimensional lattice</i>	<a href="#">Abstract</a> <a href="#">Diapos / Slides</a>
17:30 - 18:00	<b>Michael Hay</b> (University of Sydney) <i>Completeness study on certain 2X2 partial difference equation Lax pairs</i>	<a href="#">Abstract</a> <a href="#">Diapos / Slides</a>
19:30	Dinner	

## Tuesday, June 24, 2008

07:30 - 09:00	Breakfast	
<b>Session - Yang-Baxter Maps</b>		
09:00 - 09:30	<b>Alexander P. Veselov</b> (Loughborough University) <i>Yang--Baxter maps: a brief review</i>	<a href="#">Abstract</a>
09:30 - 10:00	<b>Vassilios Papageorgiou</b> (University of Patras) <i>Integrable lattice equations and Yang--Baxter maps</i>	<a href="#">Abstract</a>
10:00 - 10:30	Coffee break	
10:30 - 11:00	<b>Yuri B. Suris</b> (Technische Universitaet Muenchen) <i>Yang--Baxter maps of geometric origin</i>	<a href="#">Abstract</a>
11:00 - 11:30	<b>Barbara Prinari</b> (Universita' del Salento) <i>Yang--Baxter properties of vector NLS solitons</i>	<a href="#">Abstract</a>

11:30 - 12:00	<b>Omar Rojas</b> (La Trobe University) <i>Geometry of tropical QRT integrable maps</i>	<a href="#">Abstract</a>
12:30 - 14:00	Lunch	
<b>Session - Algebraic Aspects of Discrete Equations</b>		
14:00 - 14:30	<b>Vladimir Novikov</b> (Loughborough University) <i>Perturbative symmetry approach for differential-difference equations</i>	<a href="#">Abstract</a>
14:30 - 15:00	<b>Nalini Joshi</b> (The University of Sydney) <i>Direct reductions of differential-difference equations</i>	<a href="#">Abstract</a>
15:00 - 15:30	Coffee break	
15:30 - 16:00	<b>Boris Konopelchenko</b> (Universita del Salento) <i>Discrete, q-discrete deformations of associative algebras and integrable systems</i>	<a href="#">Abstract</a>
16:00 - 16:30	<b>Jarmo Hietarinta</b> (University of Turku) <i>Bilinear forms and soliton solutions to partial difference equations</i>	<a href="#">Abstract</a> <a href="#">Diapos / Slides</a>
16:30 - 17:00	<b>Alexander Mikhailov</b> (University of Leeds) <i>Solutions of integrable two dimensional generalisation of the Volterra system</i>	<a href="#">Abstract</a> <a href="#">Diapos / Slides</a>
17:00 - 17:30	<b>Christian Korff</b> (University of Glasgow) <i>Representation theory and q-difference equations in quantum integrable lattice models</i>	<a href="#">Abstract</a> <a href="#">Diapos / Slides</a>
17:30 - 18:00	<b>Mariusz Bialecki</b> (Polish Academy of Sciences) <i>A discrete Sato-like theory for finite fields</i>	<a href="#">Abstract</a>
18:00 - 18:30	<b>Maciej Nieszporski</b> (Uniwersytet Warszawski) <i>Integrable dynamics of Toda type on square and triangular lattices</i>	<a href="#">Abstract</a>
19:30	Dinner	

## Wednesday, June 25, 2008

07:30 - 09:00	Breakfast	
<b>Session - Singularity Confinement, Algebraic Entropy and Nevanlinna Theory</b>		
09:00 - 09:30	<b>Claude Viallet</b> (CNRS / Univ. Pierre et Marie Curie) <i>What values for the algebraic entropy?</i>	<a href="#">Abstract</a>
09:30 - 10:00	<b>Stéphane Lafortune</b> (College of Charleston) <i>Singularity analysis and Hirota bilinear form for ultra-discrete equations</i>	<a href="#">Abstract</a> <a href="#">Diapos / Slides</a>
10:00 - 10:30	Coffee break	
10:30 - 11:00	<b>Rodney Halburd</b> (University College London) <i>Nevanlinna theory and diophantine approximation in integrable systems and beyond</i>	<a href="#">Abstract</a>

11:00 - 11:30	<b>Alfred Ramani</b> (École Polytechnique) <i>Do integrable mappings have the Painlevé property?</i>	<a href="#">Abstract</a> <a href="#">Diapos / Slides</a>
<b>Session - Others</b>		
11:30 - 12:00	<b>Yunbo Zeng</b> (Tsinghua University) <i>A new multi-component two dimensional Toda lattice hierarchy</i>	<a href="#">Abstract</a> <a href="#">Diapos / Slides</a>
12:30 - 14:00	Lunch	
14:00	Free afternoon	

## Thursday, June 26, 2008

07:30 - 09:00	Breakfast	
<b>Session - Discrete Differential Geometry</b>		
09:00 - 09:30	<b>Yuri B. Suris</b> (Technische Universitaet Muenchen) <i>Discrete Koenigs nets</i>	<a href="#">Abstract</a>
09:30 - 10:00	<b>Michael Gekhtman</b> (University of Notre-Dame) <i>Grassmannians, KP tau-functions and Poisson structures</i>	<a href="#">Abstract</a>
10:00 - 10:30	Coffee break	
10:30 - 11:00	<b>Thomas Wolf</b> (Brock University) <i>Hyperdeterminants as integrable 3D difference equations</i>	<a href="#">Abstract</a> <a href="#">Diapos / Slides</a>
11:00 - 11:30	<b>Wolfgang Karl Schief</b> (Technical University Berlin) <i>The discretisation of Bertrand curves and Razzaboni surfaces and their underlying "exotic" integrable equations</i>	<a href="#">Abstract</a>
12:30 - 14:00	Lunch	

<b>Session - Others</b>		
14:00 - 14:30	<b>Atsushi Nagai</b> (College of Industrial Technology, Nihon University) <i>Best constant of Sobolev inequalities</i>	<a href="#">Abstract</a> <a href="#">Diapos / Slides</a>
14:30 - 15:00	<b>Yang Shi</b> (university of Sydney) <i>Solution to 2x2 isomonodromy problems of the 2nd and 3rd q-discrete Painlevé equation</i>	<a href="#">Diapos / Slides</a>
15:00 - 15:30	Coffee break	

<b>Session - Discrete Integrable Systems and Isomonodromy Transformations</b>		
15:30 - 16:15	<b>Alexei Borodin</b> (Caltech) <i>Isomonodromy transformations of difference equations and probability</i>	<a href="#">Abstract</a>
16:15 - 17:00	<b>Dmytro Arinkin</b> (University of North Carolina) <i>Geometric approach to discrete isomonodromy transformations</i>	<a href="#">Abstract</a> <a href="#">Diapos / Slides</a>

17:00 - 17:45	<b>Eric M. Rains</b> (California Institute of Technology) <i>An isomonodromy interpretation of the elliptic Painlevé equation</i>	<a href="#">Abstract</a>
17:45 - 18:30	<b>Anton Dzhamay</b> (The University of Northern Colorado) <i>On the Lagrangian structure of the discrete isomonodromic and isospectral dynamics</i>	<a href="#">Abstract</a> <a href="#">Diapos / Slides</a>
19:30	Dinner	

## Friday, June 27, 2008

07:30 - 09:00	Breakfast	
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### Session - Special Functions as Solutions of Difference and Q-difference Equations

09:00 - 09:30	<b>Mizan Rahman</b> (Carleton University ) <i>A q-analogue of the 9-j symbols</i>	<a href="#">Abstract</a>
09:30 - 10:00	<b>Natig Atakishiyev</b> (Universidad Nacional Autonoma de Mexico) <i>On a q-extension of Mehta's eigenvectors of the finite Fourier transform for q a root of unity</i>	<a href="#">Abstract</a>
10:00 - 10:30	Coffee break	
10:30 - 11:00	<b>Alexei Zhedanov</b> (Donetsk Institute for Physics and Technology) <i>Elliptic solutions of the restricted Toda chain, the Lamé polynomials and a generalization of the elliptic Stieltjes polynomials</i>	<a href="#">Abstract</a>
11:00 - 11:30	<b>Walter Van Assche</b> (Katholieke Universiteit Leuven, Belgium) <i>Multiple orthogonal polynomials, recurrence relations and the corresponding Toda lattice</i>	<a href="#">Abstract</a> <a href="#">Diapos / Slides</a>
11:30 - 12:00	<b>Boyka Aneva</b> (Bulgarian Academy of Sciences) <i>Boundary Askey-Wilson symmetry and related spectral problem</i>	<a href="#">Abstract</a>
12:00 - 12:30	<b>Paul Spicer</b> (University of Sydney) <i>Semiclassical orthogonal polynomials and related difference equations</i>	<a href="#">Diapos / Slides</a>
12:30 - 14:00	Lunch	

### Session - Others

14:00 - 14:30	<b>Oleg Bogoyavlenskij</b> (Queen's University) <i>Method of descent for integrable lattices</i>	<a href="#">Abstract</a>
14:30 - 15:00	<b>John Harnad</b> (Université de Montréal & Concordia University) <i>Tau functions, random processes and equilibrium models of 1-D fermi gases</i>	<a href="#">Abstract</a> <a href="#">Diapos / Slides</a>
15:00 - 15:30	Coffee break	
15:30 - 16:00	<b>Andrei Bogatyrev</b> (Russian Academy of Sciences) <i>Pictorial representation of solutions of PS-3 integral equation</i>	<a href="#">Abstract</a>
16:00 - 16:30	<b>Primitivo Belen Acosta-Humanez</b> (Universidad Politécnica de Cataluna) <i>Galoisian approach to supersymmetric</i>	<a href="#">Abstract</a>

	<i>quantum mechanics - Work in progress</i>	
16:30 - 17:00	<p><b>Valentina Golubeva</b> (VINITI) <i>On integrability of two-parametric Knizhnik-Zamolodchikov equations of <math>B_n</math> type and some other field-theoretic equations</i></p>	<p><a href="#">Abstract</a></p> <p><a href="#">Diapos / Slides</a></p>
17:00 - 17:30	<p><b>Oleksii Mokhonko</b> (Kyiv National Taras Shevchenko University) <i>Block Jacobi matrix structure of normal operators with certain spectral properties and the corresponding difference-differential flows</i></p>	
19:00	Dinner	

## Saturday, June 28, 2008

07:30 - 09:00	Breakfast	
<b>Session - Others</b>		
09:00 - 09:30	<p><b>James Pettigrew</b> (University of New South Wales) <i>Characterizing singular curves in parametrized families of biquadratics</i></p>	<p><a href="#">Abstract</a></p> <p><a href="#">Diapos / Slides</a></p>
09:30 - 10:00	<p><b>Willy Hereman</b> (Colorado School of Mines) <i>Symbolic computation of Lax pairs of nonlinear partial difference equations</i></p>	<p><a href="#">Abstract</a></p> <p><a href="#">Diapos / Slides</a></p>
10:00 - 10:30	Coffee break	
10:30 - 11:15	<p><b>F. Alberto Grünbaum</b> (University of California, Berkeley) <i>A matrix valued version of the bispectral problem</i></p>	<p><a href="#">Abstract</a></p> <p><a href="#">Diapos / Slides</a></p>
12:30 - 14:00	Lunch	
14:30	Shuttle departure for Montreal	

Last modified : Thursday, August 21, 2008 14:24