Submittee: Alexei Cheviakov Date Submitted: 2014-09-22 13:23 Title: International Conference: Symmetry Methods, Applications, and Related Fields in honour of George Bluman Event Type: Conference-Workshop

Location:

**UBC** Vancouver

### Dates:

5/13/2014 to 5/16/2014.

# Topic:

- Symmetry Methods for Differential Equations

- Applications,
- Related Fields.

# Methodology:

talks

# Organizers:

Anco, Stephen, Department of Mathematics & Statistics, Brock University // Cheviakov, Alexei, Department of Mathematics & Statistics, University of Saskatchewan //

# Speakers:

George Bluman, University of British Columbia, Canada "CAREER HIGHLIGHTS IN WORKING IN THE FIELD OF SYMMETRIES/DES" //

Philip Bropadbridge, La Trobe University, Melbourne, Australia "Applications of Nonclassical Symmetry Reductions of Nonlinear Reaction-Diffusion Equations" //

Brian Cantwell, Stanford University, USA "Coupling Between Fuel Mass Transfer and Free-Stream Mass Flux in Boundary Layer Combustion in a Circular Cross-Section Channel: Application of symmetry methods to hybrid propulsion" //

Temuer Chaolu, Shanghai Maritime University, China "Differential characteristic set algorithm for PDEs symmetry computation, classification, decision and extension" //

Roman Cherniha, University of Nottingham, UK "Lie and conditional symmetries of nonlinear boundary value problems: definitions, algorithms and applications" //

Alexei Cheviakov, University of Saskatchewan, Canada "Nonlocally Related PDE Systems: History, Recent Developments, and Open Problems" //

Roy Choudhury, University of Central Florida, "Building Integrable NLPDE Hierarchies with Temporally AND Spatially Varying Coefficients" //

Vladimir Dorodnitsyn, Keldysh Institite, Moscow, Russia "Symmetries and first integrals for difference equations" //

Mark Fels, Utah State University, USA "Equations of Lie Type and Applications to Solving Differential Equations" //

Peter Hydon, University of Surrey, UK "Conservation Laws: from Differential to Difference" //

Abdul Kara, University of the Witwatersrand, South Africa "Symmetry structures of ASD manifolds" //

Lin Luo, Shanghai Second Polytechnic University, China "Quasi periodic waves of the super symmetric modified KdV equaition" //

Guowu Meng, Hong Kong University of Science & Technology, Hong Kong "Planetary Motions and Lorentz Transformations" //

Abdus Sattar Mia, University of Saskatchewan, Canada "Conservation laws of the incompressible two-fluid system" //

Martin Oberlack, TU Darmstadt, Germany "Statistical symmetries of the infinite-dimensional correlation system of turbulence, new invariant solutions and its validation using large-scale turbulence simulations" //

Peter Olver, University of Minnesota, USA "A historical overview of symmetry methods for differential equations: from Lie to Noether to Birkhoff to Ovsiannikov to Bluman and beyond" //

Juha Pohjanpelto, Oregon State University, USA "Symmetries, Conservation Laws, and Variational Principles for Differential Equations" //

Sarah Post, University of Hawai`?, USA "Classification of Superintegrable Systems and Algebra Contractions" //

Dmitry Pshenitsin, Brock University, Canada "Conservation Laws of Magnetohydrodynamic Equations and Their Transformational Properties" //

Changzheng Qu, Ningbo University, China "Symplectic Invariants for Curves and Integrable Systems in Centro-Equiaffine and Similarity Symplectic Geometries" //

Greg Reid, Western University, Canada "Approximate Symmetry Analysis of Differential Equations" //

Liu Xuan, Western University, Canada "Algorithms for Finding the Lie Superalgebra Structure of Regular Super Di erential Equations" //

Michael Ward, University of British Columbia, Canada "An Asymptotic Analysis of the Persistence

Threshold for the Diffusive Logistic Model in Spatial Environments with Localized Patches" //

Thomas Wolf, Brock University, Canada "group foliation method for finding exact solutions to nonlinear PDEs" //

Carl Wulfman, Prof. Emeritus, University of the Pacific, USA "Conservation of energy and special conformal transformations of Minkowski space time." //

Tiecheng Xia, Shanghai University, China "Approximate Symmetry Analysis of Differential Equations" //

Zhenya Yan, Chinese Academy of Science, China "Matter Waves of Some Generalized Gross-Pitaevskii Equations with Varying Potentials and Nonlinearities" //

Akira Yoshioka, Tokyo University of Science, Japan "Star Product and its Application" //

# Links:

http://math.usask.ca/~cheviakov/bluman2014/#Speakers\_and\_Abstracts