

**XXIInd INTERNATIONAL WORKSHOP
ON DIFFERENTIAL GEOMETRIC METHODS
IN THEORETICAL MECHANICS**

Będlewo, 19-26 August, 2007

PROGRAM

Monday, 20.08

9.00 D. Chruściński (Toruń, POLAND): Symmetries and Quantum Entanglement

10.00 L. Vitagliano (Salerno, ITALY): Secondary Calculus

Coffee break

11.30 D. Iglesias (Madrid, SPAIN): Reduction of Lie bialgebroids

Lunch

15.00 J. de Lucas (Zaragoza, SPAIN): New geometric approaches in the study of Ermakov systems

15.45 G. Moreno (Salerno, ITALY): Cohomological interpretation of transversality conditions

Bonfire

Tuesday, 21.08

9.00 G. Prince (Melbourne, AUSTRALIA): Exterior Differential Systems and the Inverse Problem

10.00 J. Vankerschaver (Ghent, BELGIUM): A survey of Lie groupoid methods in discrete Mechanics

Coffee break

11.30 W. M. Tulczyjew (Monte Cavallo, ITALY): What are and what are not constraints

Lunch

15.00 V. Cappellini (Kraków, POLAND): Average G-concurrence of Random Pure States

15.45 M. Elżanowski (Portland, USA): A mathematical theory of defective crystals

Wednesday, 22.08

9.00 M. Kuś (Warszawa, POLAND): Measurable entanglement measures

10.00 Z. Muzsnay (Debrecen, HUNGARY): On the integrability conditions of the Euler-Lagrange equation

Coffee break

11.30 W. Respondek (INSA Rouen, FRANCE): Nonholonomic constraints: a comparison of mechanical and variational systems

Lunch

Excursion to Poznań and dinner

Thursday, 23.08

9.00 J. Grabowski (Warszawa, POLAND): **Algebras of differential operators**

10.00 K. Życzkowski (Kraków, POLAND): **Quantum entanglement and foliations of complex projective spaces**

Coffee break

11.30 E. Jarzębowska (Warszawa, POLAND): **Constrained systems in Mechanics and Control as they appear in Engineering**

Lunch

15.00 D. Sosa Martin (La Laguna, SPAIN): **Vakonomic Mechanics on Lie Algebroids**

15.45 M. Błaszak (Poznań, POLAND): **Non-Hamiltonian systems separable by the Hamilton-Jacobi method**

Friday, 24.08

9.00 N. Poncin (LUXEMBOURG): **Modules of differential operators and quantization**

10.00 C. Lopez (Alcala de Henares, SPAIN): **IP: algorithm of consistency with covariant derivatives**

Coffee break

11.30 D. Martín de Diego and Manuel de León (Madrid, SPAIN): **Some new developments in Hamilton-Jacobi theory. Applications to constrained systems**

Lunch

15.00 A. Dzhumadil'daev (Almaty, KAZAKHSTAN): **N-commutators and identities of vector fields**

15.45 E. Paganì (Trento, ITALY): **Calculus of Variations with Constraints**

17.00 *Discussion on the venue and program of the next conference*
Conference dinner

Saturday, 25.08

9.00 P. Mathonet (Liège, BELGIUM): **Natural and invariant quantization.**

10.00 S. Ferraro (Madrid, SPAIN): **Isoparallel problems as generalized nonholonomic systems**

Coffee break

11.30 *Discussions*

Lunch

15.00 *Discussions*

Sunday, 26.08

Departures after breakfast