



# GEOMETRY OF PDES AND INTEGRABILITY

14-18 October 2013

Teplice nad Bečvou, Czech Republic

<http://gdeq.org/>

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## Conference Program

Last updated: October 11, 2013

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**Sunday 13 October:** Arrival day. Registration from 17:00 pm to 22:00  
(Penzion Diana, Teplice nad Bečvou 42, 753 01 Hranice, ☎ +420 581 608 427)

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### Monday 14

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08:30 – 08:55 *Registration*

08:55 – 09:00 *Opening*

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Morning session CHAIRPERSON: I.S. KRASIL'SHCHIK

09:00 – 09:45 V. Lychagin *Application of differential invariants to classical algebraic problems*

09:45 – 10:30 M. Pavlov *Integrable Geodesics*

10:30 – 11:00 *Coffee Break*

11:00 – 11:30 P. Bibikov *Spherization of 1-jet space  $J^1\mathbb{R}^n$  and point classification of first order partial differential equations*

11:30 – 12:00 N. Stoilov *Hamiltonian systems of hydrodynamic type in  $2+1$  dimensions and their dispersive deformations (a joint work with E.V. Ferapontov, V.S. Novikov and A.V. Odesskii)*

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12:15 – 13:30 Lunch

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Afternoon session CHAIRPERSON: B. KRUGLIKOV

14:30 – 15:15 P.A. Damianou *Generalized Toda and Volterra systems*

15:15 – 15:45 O. Chvartatskyi *New generalizations of  $(2+1)$ -dimensional  $k$ -constrained KP hierarchies (joint work with Yu.M. Sydorenko)*

15:45 – 16:15 *Coffee Break*

16:15 – 17:00 V. Roubtsov *Classical and quantum algebraic structures within Painlevé transcendents (based on a joint paper with M. Mazzocco and a work in progress)*

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19:00 – 21:00 Dinner

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<b>Tuesday 15</b>	Morning session	CHAIRPERSON: V. ROUBTSOV
09:00 – 09:45	B. Kruglikov	<i>Integrability of dispersionless PDEs in 3D and Einstein-Weyl geometry (joint with Eugene Ferapontov)</i>
09:45 – 10:30	Z. Popowicz	<i>Generalized Peakons equations</i>
10:30 – 11:00		<i>Coffee Break</i>
11:00 – 11:30	A. Samohin	<i>Gradient catastrophes for the Burgers equation on a finite interval</i>
11:30 – 12:00	L. Martina	<i>Symmetry reductions of the Skyrme-Faddeev model</i>
12:15 – 13:30		Lunch
	Afternoon session	CHAIRPERSON: R. VITOLO
14:30 – 15:15	S. Igonin	<i>Lie algebras responsible for zero-curvature representations of (1 + 1)-dimensional PDEs and some applications to Bäcklund transformations</i>
15:15 – 15:45	B. Szablikowski	<i>Novikov algebras and a classification of multicomponent Camassa-Holm equations (joint work with Ian Strachan from Glasgow University)</i>
15:45 – 16:15		<i>Coffee Break</i>
16:15 – 17:00	L. Vitagliano	<i>Homotopy Lie algebroids</i>
19:00 – 21:00		Dinner

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<b>Wednesday 16</b>	Morning session	CHAIRPERSON: A. SERGYEYEV
09:00 – 09:45	M. Błaszak	<i>Invariant quantization of hamiltonian mechanics</i>
09:45 – 10:30	G. Helminck	<i>Darboux transformations for the lower triangular Toda hierarchy and its strict version</i>
10:30 – 11:00		<i>Coffee Break</i>
12:00 – 13:00		Lunch
13:30 – 18:00		Excursion
19:00 – 21:00		Dinner

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<b>Thursday 17</b>	Morning session	CHAIRPERSON: G. HELMINCK
09:00 – 09:45	J. Pohjanpelto	<i>Pseudo-groups, moving frames, and invariant variational principles</i>
09:45 – 10:30	A. Doliwa	<i>Non-commutative integrable discrete systems of a geometric origin</i>
10:30 – 11:00		<i>Coffee Break</i>
11:00 – 11:30	R. Vitolo	<i>On the classification of homogeneous differential-geometric third-order Poisson brackets (joint work with M.V. Pavlov and G.V. Potemin)</i>
11:30 – 12:00	O. Morozov	<i>Lie pseudo-groups and coverings of differential equations</i>
12:15 – 13:30		Lunch
	Afternoon session	CHAIRPERSON: A. VERBOVETSKY
14:30 – 15:15	G. Moreno	<i>Flags and polarization in geometric singularites of jets (joint work with M. Bächtold)</i>
15:15 – 15:45	P. Vojčák	<i>On nonlocal symmetries for the Krichever-Novikov equation</i>
15:45 – 16:15		<i>Coffee Break</i>
16:15 – 17:00	F. Müller-Hoissen	<i>Binary Darboux transformations in bidifferential calculus</i>
19:00 – 22:00		Social dinner

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<b>Friday 18</b>	Morning session	CHAIRPERSON: V. LYCHAGIN
09:00 – 09:45	I. Markina	<i>Sub-Riemannian geometry on infinite dimensional manifolds</i>
09:45 – 10:30	A. Vasiliev	<i>Sub-Riemannian geodesic equations on the Virasoro-Bott group</i>
10:30 – 11:00		<i>Coffee Break</i>
11:00 – 11:30	M. Marvan	<i>On symmetries and conservation laws of the Gibbons-Tsarev equation (jointly with H. Baran, P. Blaschke, I.S. Krasil'shchik)</i>
11:30 – 12:00	H. Baran	<i>Symbolic computations on diffieties – a brief introduction to Jets package</i>
12:15 – 13:30		Lunch
	Afternoon session	CHAIRPERSON: M. MARVAN
14:30 – 15:15	A. Sergyeyev	<i>Coupling constant metamorphosis, integrability and all that</i>
15:15 – 15:45	I. Krasil'shchik	<i>On integrability in finite-dimensional coverings</i>
15:45 – 16:15		<i>Coffee Break</i>
16:15 – 16:25		Closing
19:00 – 21:00		Dinner

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<b>Saturday 19</b>	THE DEPARTURE DAY
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