EUROPEAN SCIENCE FOUNDATION

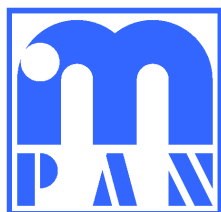SETTING SCIENCE AGENDAS FOR EUROPE

**Minister of Science
and Higher Education (MSHE)
Republic of Poland**

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ESF Mathematics Conferences in Poland
in partnership with MSHE and the
Institute of Mathematics (PAN)

Algebraic Aspects in Geometry

Mathematical Research and Conference Center,
Będlewo ▪ Poland
17-23 October 2007

Chair: **Norbert Poncin**, University of Luxembourg, LU
Vice-Chair: **Janusz Grabowski**, Polish Academy of
Sciences, Warszawa, PL

Organising Committee: **Pierre Lecomte**, University of
Liège, BE ▪ **Martin Schlichenmaier**, University of
Luxembourg, LU ▪ **Ping Xu**, Pennsylvania State University,
US

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Final Programme

Late afternoon / early evening	Registration at the ESF-RC desk
19.00	Welcome Drink
20.00	Dinner

Thursday 18 October

08.00-09.00	Breakfast
09.00-09.10	Conference Opening

General Session

Chair: Norbert Poncin, University of Luxembourg, LU

09.15-10.15	**Giovanni Landi** Università di Trieste, IT *Dirac operators on noncommutative manifolds*
10.15-10.45	Coffee break
10.45-11.45	**Serge Skryabin** Chebotarev Research Institute, Kazan, RU *Algebraic characterization of differential geometric structures*
12.00	Lunch

Session 1: Weyl algebra and related conjectures

Chair: Serge Skryabin, Chebotarev Research Institute, Kazan, RU

14.15-15.15	**Vladimir Bavula** University of Sheffield, UK *The Jacobian map, the Jacobian group, and the group of automorphisms of the Grassmann algebra*
15.15-15.45	Coffee break
15.45-16.45	**Arno van den Essen** Radboud University, Nijmegen, NL *The equivalence of the Dixmier, Jacobian, and Poisson Conjectures*
16.45-17.45	**Alexei Kanel-Belov** Bar-Ilan University, Ramat-Gan, IL *Authomorphisms of Weyl Algebras*
19.00	Bonfire Night with Dinner

08.00-09.00   Breakfast

Session 2: Infinite dimensional Lie algebras and Field Theory

Chair: Martin Schlichenmaier, University of Luxembourg, LU

09.00-10.00   Ctirad Klimcik
Institute of Mathematics of Luminy, Marseille, FR
$q \to \infty$ limit of the quasitriangular WZW model

10.00-11.00   Glenn Barnich
Université Libre de Bruxelles & International Solvay Institutes, BE
Algebraic structure of gauge systems: theory and applications

11.00-11.30   Coffee break

11.30-12.30   Oleg Sheinman
Steklov Mathematical Institute, Moscow, RU
Lax operator algebras and integrable systems

12.30   Lunch

15.00-16.00   Karl-Hermann Neeb
Darmstadt University of Technology, DE
Infinite-dimensional Lie algebras beyond Kac-Moody and Virasoro algebras

16.00-16.30   Coffee break

16.30-17.30   Alice Fialowski
Eotvos Lorand University, Budapest, HU
Infinite dimensional Lie algebras, deformations, and geometry

19.00   Dinner

08.00-09-00   Breakfast

Session 3: L-infinity algebras

Chair: Dmitry Roytenberg, IHES, Bures-sur-Yvette, FR

09.00-10.00   Martin Markl
The Czech Academy of Sciences, Prague, CZ
L-infinity algebras: an overview

10.00-11.00   Pavol Severa
Comenius University, Bratislava, SK
L-infinity algebras as first approximations

11.00-11.30   Coffee break

Session 4: Short talks – Lie algebras

Chair: Helge Maakestad, Norwegian University of Science and Technology, Trondheim, NO

11.30-12.00	**Askar Dzhumadil'daev**
	Academy of Sciences of Kazakhstan, Almaty, KZ
	Virasoro Type Lie algebras
12.00-12.30	**Oksana Hentosh**
	Ukrainian National Academy of Sciences, Lviv, UA
	The Lie-algebraic structure of Lax-integrable (2/2+1)-dimensional nonlinear dynamical systems

12.30	Lunch

Afternoon	Half-day excursion to Poznan
19.30	Dinner

Sunday 21 October

08.00-09.00	Breakfast

Session 5: Courant algebroids and generalised complex structures

Chair: Genrich Belitskii, Ben-Gurion University of the Negev, Beer-Sheva, IL

09.00-10.00	**Aissa Wade**
	Penn State University, University Park, US
	Courant algebroids and transverse structures
10.00-11.00	**Mathieu Stienon**
	ETH Zürich, CH
	Generalized Moser Lemma
11.00-11.30	Coffee break

Session 6: Short talks – quantization

Chair: Abdenacer Makhlouf, Université de Haute Alsace, Mulhouse, FR

11.30-12.00	**Armen Sergeev**
	Steklov Mathematical Institute, Moscow, RU
	Geometric quantization of the universal Teichmueller space
12.00-12.30	**Fabian Radoux**
	University of Luxembourg, LU
	Natural and projectively equivariant quantization

12.30	Lunch

Session 7: Forward look

Chair: Janusz Grabowski, Polish Academy of Sciences, Warsaw, PL

15.00-16.00	Forward look plenary discussion
16.00-16.30	Coffee break

Poster Session

Chair: Zhuo Chen, Peking University, CN and Pierre Mathonet, University of Liège, BE

16.30-18.30	Poster presentations
19.00	Dinner

08.00-09.00	Breakfast

Session 8: Algebroids and supergeometry

Chair: Martin Markl, The Czech Academy of Sciences, Prague, CZ

09.00-10.00	Theodore Voronov University of Manchester, UK *Q-manifolds and Mackenzie theory*
10.00-11.00	Dmitry Roytenberg IHES, Bures-sur-Yvette, FR *Weak Lie 2-algebras*
11.00-11.30	Coffee break

Session 9: Short talks – topological groups

Chair: Sergei Silvestrov, Lund University, SE

11.30-12.00	Wojciech Wojtynski Warsaw University, PL *Effective integration of Lie algebras*
12.00-12.30	Yuliya Zelenyuk University of Witwatersrand, Johannesburg, ZA *Transformations and colorings of groups*
12.30	Lunch

Session 10: Supersymmetry and sigma models

Chair: Aleksandr Zheltukhin, National Science Center – Kharkov Institute of Physics and Technology, UA

15.00-16.00	Thomas Strobl Université Claude Bernard, Lyon 1, FR *Yang-Mills type sigma models*
16.00-16.30	Coffee break
16.30-17.30	Alexei Kotov University of Luxembourg, LU *Sigma models with relation to super structures in Geometry*
17.30-17.40	Closing ceremony
19.00	Conference Dinner

Tuesday 23 October

Breakfast & Departure

Abstracts, Posters & Short Oral Presentations

There will be no short talks other than those listed on the programme. All other abstracts are accepted as posters