

Seminář se koná v učebně M5 Ústavu matematiky a statistiky, budova 08, areál Přírodovědecké fakulty, Kotlářská 2, Brno, vždy v 10:00.

Vedoucí semináře:

- Prof. RNDr. Ivan Kolář, DrSc.,
- Prof. RNDr. Jan Slovák, DrSc.,
- Prof. RNDr. Josef Janyška, DSc. (programový vedoucí),
- Doc. RNDr. Miroslav Doupovec, CSc.

Seminář je podporován projektem Algebraické metody v geometrii s potenciálem k aplikacím, operačního programu Vzdělávání pro konkurenceschopnost, číslo CZ.1.07/2.3.00/20.0003.



Přednášky v podzimním semestru 2017

- 13. 11. 2017
Radoslaw Kycia
Topological modelling of nuclear pasta phases

- 6. 11. 2017
Jan Slovák
Cartan-Kähler theory -- application to quaternionic contact structures

- 30. 10. 2017

Josef Šilhan

Interesting connections in the projective class, and obstructions

Přednášky v jarním semestru 2017

- 22. 5. 2017
Henrik Winther
Non-degenerate Almost- and Para-Complex structures, and their Symmetries

- 24. 4. 2017
Sumit Kaushik
Curve Evolution under Extrinsic metrics for DTI processing

- 10. 4. 2017
Jan Gregorovič
On standard models of CR and para--CR manifolds

- 20. 3. 2017
Vojtěch Žádník
The curves, or from Frenet apparatus to Thomas tractors and back again

- 6. 3. 2017
Jan Slovák:
Constant curvature models in sub-Riemannian geometry

Přednášky v podzimním semestru 2016

- 12. 12. 2016
Josef Šilhan
Curves in conformal and projective geometries

- 21. 11., 2016, the lecture room M5:
10.00
Miroslav Kureš
TBA

- 14. 11. 2016, the lecture room M5:
10.00
Phan Thanh Nam
Recent progress on the ionization problem

- 31. 10. 2016
10.00 - 10.50
Ivan Minchev
On the generality of quaternionic contact structures

- 11.00 - 11.50
Gerd Schmalz
Chern-Moser theory for para-CR-manifolds and degenerate multi-contact structures

- 24. 10. 2016
Ilya Kossovskiy
The Associated Differential Equations Method in CR-geometry

- 10. 10. 2016
Arman Taghavi-Chabert

Přednášky v jarním semestru 2016

- 13. 6. 2016
Stefan Ivanov
The quaternionic contact Yamabe problem

- 9. 5. 2016
Josef Šilhan
Higher supersymmetries

- 25. 4. 2016
Diana Barseghyan (University of Ostrava)
Spectral analysis of a class of Schroedinger operators exhibiting a
parameter-dependent spectral transition

- 11. 4. 2016
Anton Galaev
Special Kähler-Lorentz metrics

- 14. 3. 2016
Jan Slovák

- 7. 3. 2016
Vladimir Ezhov (Flinders University/ MPIM Bonn)
New family of unbounded homogeneous tube domains
in \mathbb{C}^n

- 29. 2. 2016
Ioannis Chrysikos

Spin and metaplectic structures on homogeneous spaces

-

22. 2. 2016

Matthias Hammerl (University of Greifswald):
Holography of BGG-Solutions

Přednášky v podzimním semestru 2015

- 7. 12. 2015

Katja Sagerschnik

Nurowski's conformal structures with almost Einstein scales

- 30. 11. 2015

Matthew Randall

- 23. 11. 2015

Vojtěch Žádník

Report on Lie contact structures

- 2.11.2015

Gueo Grantcharov (the Florida International University, USA):
On HKT geometry

- 26.10.2015

Matthew Burke

Synthetic Lie Theory Part I: An Introduction to Synthetic Differential Geometry

Parts II and III will be presented on the seminar on algebra on October 29 and
November 5 (1pm, seminar room)

-

12.5.2015

Anton Galaev

Holonomy algebras of Einstein pseudo-Riemannian manifolds

Přednášky v jarním semestru 2015

- 18.5.2015

Yaroslav Bazaykin

Numerical analysis of topological characteristics of three-dimensional geological models
of oil and gas fields

Zoran Škoda

Hopf algebroids of differential operators

- 11.5.2015
Ioannis Chrysikos
Killing spinors with torsion and applications

- 27. 4. 2015
Zdeněk Dušek
How many are affine connections of special types

- 20. 4. 2015
Michal Marvan
Integrable surfaces II

- 13. 4. 2015
Arman Taghavi-Chabert:
Twistorial description of null foliations

-

30.3.2015
Dmitri Alekseevsky
Conformally homogeneous manifolds

- 2. 3. 2015
Anton Galaev
Classification of third-order symmetric Lorentzian manifolds

- 9. 3. 2015
Jan Slovák
Linearized metrization problem for Parabolic Geometries
-- general procedure and examples

Přednášky v podzimním semestru 2014

-

15.12. 2014

Christian Gustad

Regular and singular contact actions of Lie algebras

- 8. 12. 2014

Ioannis Chrysikos

Killing and twistor spinors with torsion on compact naturally reductive spaces

- 1. 12. 2014

Jean-Philippe Michel

Dirac operators and their symbols

- 10. 11. 2014

Georgy Sharygin

Local formulas for characteristic classes

- 3. 11. 2014

Dmitri Alekseevski

Homogeneous pseudo-Riemannian Einstein metrics associated with graded semisimple Lie algebras

- 13. 10. 2014

Ivan Kolář

On the vertical Weil bundles

- 6. 10. 2014
Anton Galaev
How to compute the holonomy algebra of
a Lorentzian manifold

- 24. 9. 2014
Stefan Ivanov
The Lichnerowicz-Obata sphere theorems on a quaternionic contact
manifold of dimension bigger than seven"

- 22. 9. 2014
Dimiter Vassilev
Lichnerowicz-Obata sub-laplacian eigenvalue theorem
in CR geometry under a positive "Ricci" bound

Přednášky v jarním semestru 2014

- 12. 5. 2014
Dimiter Vassilev
Quaternionic contact Liouville theorem and applications

- 5. 5. 2014
Ivan Kolář
On general connections

- 14. 4 .2013

Dmitri Alekseevski

- 7. 4. 2014
Yaroslav Bazaykin
Stability of integral persistence diagrams
-

- 24. 3. 2014 ,12:00--13:50, lecture room M4
25. 3. 2014, 10:00--11:50, lecture room MS1
27. 3. 2014, 10:00--11:50, lecture room M4
31. 3. 2014, 12:00--13:50, lecture room M4
Evgeny Malkovich
Construction of metrics with special holonomies via geometrical flows
(series of lectures)

- 10. 3. 2014
Katja Sagerschnig
Conformal structures in dimension four and generic rank two distributions in
dimension five

- 3. 3. 2014
Anton Galaev
Irreducible holonomy algebras of Riemannian supermanifolds

Přednášky v podzimním semestru 2013

- 25. 11. 2013
Jonathan Kress
Recent progress in superintegrable systems

- 18.11. 2013
Ivan Minchev
Quaternionic contact hypersurfaces in hyper-Kaehler geometry

- 11. 11. 2013
Anton Galaev
Holonomy groups of superconnections on supermanifolds

- 4. 11. 2013
Giovanni Moreno
Meta-symplectic geometry of 3rd order Monge-Ampère equations

- 21. 10. 2013
Jan Gregorovič
Generalized symmetries of homogeneous parabolic geometries

- 7. 10. 2013
Ivan Kolář
General connections and the Froehlicher-Nijenhuis bracket

- 30. 9. 2013
Dmitri Alekseevsky
Classification of cohomogeneity one Kaehler G-manifolds of a compact semisimple group
\$G\$ in terms of painted Dynkin diagrams

Přednášky v jarním semestru 2013

- 13. 5. 2013

John Ryan
Dirac type operators and conformal groups

- 15. 4. 2013
Christian Gustad

- 8. 4. 2013
Anton Galaev
Pseudo-Riemannian manifolds with recurrent spinor fields

- 25. 3. 2013
Josef Šilhan
On symmetries of the Laplacian

- 18. 3. 2013
Ivan Kolář
On natural transformations of Weil bundles

- 4. 3. 2013
Rikard von Unge
Generalized Kahler reduction

- 25. 2. 2013
Joseph Krasil'shchik
On geometry of integrable systems and its cohomological background

Přednášky v podzimním semestru 2012

- 10. 12. 2012
Jan Slovák
Conformal Fedosov manifolds

- 26. 11. 2012
Dmitri Alekseevsky
TBA

- 19. 11. 2012
Ivan Kolář
On the functorial prolongations of fiber bundles

- 12. 11. 2012
Ioannis Chrysikos
The Dirac operator on non-naturally reductive spaces

- 29. 10. 2012
Andrea Santi
On the automorphism group of extended Poincaré structures

- 15. 10. 2012
Anton Galaev
Algorithm for deRham-Wu decomposition for Riemannian and Lorentzian manifolds

- 1. 10. 2012
Jan Gregorovič
Geometric structures invariant to symmetries