Thursday, August 26

18:00–24:00

Grand Opening and Welcome Party

Continental Hotel

Invited plenary talks

FRIDAY • 9:00–11:00 • FACULTY OF SCIENCES • ROOM 1

chaired by Michael G. Eastwood

- *Shun-ichi Amari* 9:00–9:50
  Information Geometry Derived from Divergence Functions
- *Gudlaugur Thorbergsson* 10:00–10:50
  Singular Riemannian foliations without horizontally conjugate points

❦

FRIDAY • 11:00–13:00 • FACULTY OF SCIENCES • ROOM 1

chaired by Michael G. Eastwood

- *Joseph M. Landsberg* 11:30–12:20
  Differential geometry of orbit closures and P v. NP

❦

Riemannian Geometry and Submanifolds

FRIDAY • 14:00–16:00 • FACULTY OF SCIENCES • ROOM 1

chaired by Masami Sekizawa

- *Ilka Agricola* 14:00–14:40
  Geometries with torsion and their Dirac operators
- *Teresa Arias-Marco* 14:50–15:20
  About the audibility of closed symmetric-like Riemannian manifolds

❦

FRIDAY • 16:00–18:00 • FACULTY OF SCIENCES • ROOM 1

chaired by Ilka Agricola

- *Albert Borbely* 16:10–16:40
  Curve shrinking flow on graphs of bounded functions
- *Georges Habib* 16:50–17:20
  Basic Cohomology for Riemannian foliations

- *Steven Verpoort* 17:30–18:00
  On Elastic Deformation Metrics.

Natural Operations and General Geometric Structures

Friday • 14:00–16:00 • Faculty of Sciences • Room 2

chaired by I. Kolar

- *Sandra Gavino-Fernandez* 15:00–15:20
  Three-dimensional homogeneous Lorentzian Ricci solitons
- *Manuel Fernández-López* 15:30–15:50
  Some results on gradient Ricci solitons

❦

Friday • 16:00–18:00 • Faculty of Sciences • Room 2

chaired by I. Kolar

- *Liviu Octavian Popescu* 16:00–16:30
  Metric connections on Lie Algebroids
- *David Brander* 16:40–17:10
  Solving geometric Cauchy problems via infinite dimensional techniques
- *Omer Peksen* 17:20–17:40
  On Invariants of Null Curves in the Pseudo-Euclidean Geometry

Representation Theory in Differential Geometry

Friday • 14:00–16:00 • Faculty of Sciences • Room 3

chaired by Andreas Čap

- *Simon G. Gindikin* 15:00–15:50
  Complex analysis on symmetric spaces

❦

Friday • 16:00–18:00 • Faculty of Sciences • Room 3

chaired by Andreas Čap

- *Yuryi Nikolayevsky* 16:00–16:40
  Conformal relatives of symmetric spaces and conformal Osserman Conjecture

Riemannian Geometry and Submanifolds

Saturday • 9:00–11:00 • Faculty of Sciences • Room 1

chaired by Franki Dillen

- *Giovanni Calvaruso* 9:00–9:40
  Contact pseudo-metric geometry
- *Giulia Dileo* 9:50–10:10
  On the geometry of almost contact metric manifolds of Kenmotsu type
- *SunHyang Chun* 10:15–10:35
  The harmonic Reeb vector field on unit tangent sphere bundles
- *Jungchan Lee* 10:40–11:00
  Some variational problems for almost Hermitian structures

❦

Saturday • 11:00–13:00 • Faculty of Sciences • Room 1

chaired by Giovanni Calvaruso

- *Sadahiro Maeda* 11:10–11:40
  Geometry of the horosphere in a complex hyperbolic space
- *Hitoshi Furuhata* 11:50–12:20
  Statistical submanifolds and spaces of constant Hessian sectional curvature

❦

Saturday • 14:00–16:00 • Faculty of Sciences • Room 1

chaired by Hitoshi Furuhata

- *Toshiaki Adachi* 14:00–14:40
  On trajectory-spheres for Kähler manifolds
- *Mitsuhiro Itoh* 14:45–15:25
  Fisher Information Geometry, Poisson Kernel and Asymptotical Harmonicity I
- *Hiroyasu Satoh* 15:30–16:00
  Fisher Information Geometry, Poisson Kernel and Asymptotical Harmonicity II

❦

SATURDAY • 16:00–18:00 • FACULTY OF SCIENCES • ROOM 1

chaired by Teresa Arias-Marco

- *Andreas Arvanitoyeorgos* 16:10–16:50
  Einstein metrics on Lie groups which are not naturally reductive
- *Ioannis Chrysikos* 17:00–17:20
  Homogeneous Einstein metrics on generalized flag manifolds
- *Kazuyuki Hasegawa* 17:30–18:00
  Surfaces of genus zero in self-dual Einstein manifolds and their twistor lifts

Natural Operations and General Geometric Structures

SATURDAY • 9:00–11:00 • FACULTY OF SCIENCES • ROOM 2

chaired by Jaroslav Hrdina

- *Van Hong Le* 9:00–9:30
  Smooth structures on pseudomanifolds with conical singularities
- *Mancho Hristov Manev* 9:40–10:10
  On the Geometry of Connections with Totally Skew-Symmetric Torsion on Manifolds with Complementary Tensor Structures and Indefinite Metrics
- *Dr Goo Ishikawa* 10:20–10:50
  Geometry and singularity of framed curves in space forms and projective duality

❦

SATURDAY • 11:00–13:00 • FACULTY OF SCIENCES • ROOM 2

chaired by Miroslav Kureš

- *Ivan Kolář* 11:10–11:40
  On the fiber product preserving bundle functors
- *Josef Janyška* 11:50–12:20
  Reduction theorem for general connections
- *Miroslav Doupovec* 12:30–13:00
  On higher order connections

❦

SATURDAY • 16:00–18:00 • FACULTY OF SCIENCES • ROOM 2

chaired by Miroslav Doupovec

- *Petr Vašík* 16:30–16:50
  On the properties of higher order semiholonomic connections
- *Miroslav Kureš* 17:00–17:20
  Remarks to semiholonomic jets and Cosserat media
- *Javier Seoane Bascoy* 17:30–17:50
  Killing spinors and the Dirac operator on the Berger manifold $B^7 = Sp(2)/SU(2)$

Geometric Analysis and Mathematical Physics

SATURDAY • 9:00–11:00 • FACULTY OF SCIENCES • ROOM 3

chaired by D. Krupka

- *Demeter Krupka* 9:00–9:40
  The Cartan form and its generalizations
- *Serge Preston* 9:50–10:30
  Balance systems, forms of Lepage type and the Entropy Principle
- *Ekkehart Winterroth* 10:40–11:00
  Local variational problems and conservation laws

❦

SATURDAY • 11:00–13:00 • FACULTY OF SCIENCES • ROOM 3

chaired by D. Krupka

- *Roman Matsyuk* 11:10–11:30
  Covariant form of the fourth order variational equation in Riemannian space and relativistic test particle motion.
- *Ján Brajerčík* 11:40–12:00
  Order reduction of the Euler-Lagrange equations of higher order invariant variational problems on frame bundles
- *Erico Tanaka* 12:10–12:30
  Hamilton Equations of General Relativity
- *Aleš Paták* 12:40–13:00
  Hamiltonian Structure of the Yang-Mills Functional

❦

Finsler Geometry and its Applications

SATURDAY • 16:00–18:00 • FACULTY OF SCIENCES • ROOM 3

chaired by Z. Shen

- *Laszlo Kozma* 16:00–16:30
  Facts and problems of sub-Finslerian geometry
- *Radu Ioan Peter* 16:40–17:10
  A Morse Index Theorem with variable endpoints for generalized Finsler metrics.

- *Xinyue Cheng* 17:20–17:50
  On locally dually flat Finsler metrics

Invited plenary talks

Sunday • 9:00–11:00 • Faculty of Sciences • Room 1

- *Anna Fino* 9:00–9:50
  Special Hermitian metrics
- *Zhongmin Shen* 10:00–10:50
  Projectively Flat Finsler Metrics with Constant Flag Curvature

❦

Sunday • 11:00–13:00 • Faculty of Sciences • Room 1

- *Andreas Čap* 11:30–12:20
  Projective BGG equations, polynomial systems, and compactifications of Einstein manifolds

❦

Sunday • 14:00–20:00

Conference Trip

❦

Riemannian Geometry and Submanifolds

Monday • 9:00–11:00 • Faculty of Sciences • Room 1

chaired by Andreas Arvanitoyeorgos

- *Rafael Lopez* 9:00–9:40
  Surfaces with constant mean curvature in Sol geometry
- *Masami Sekizawa* 9:50–10:20
  On natural Riemann extensions
- *Ana Hurtado* 10:30–11:00
  The isoperimetric problem in the sub-Riemannian three-sphere

❦

Monday • 11:00–13:00 • Faculty of Sciences • Room 1

chaired by Rafael Lopez

- *Eduardo Garcia-Rio* 11:10–11:40
  Geometry of modified Riemannian extensions
- *Esteban Calvino-Louzao* 11:50–12:20
  Symmetric-like three-dimensional Lorentzian manifolds
- *Zdeněk Dušek* 12:30–13:00
  Existence of homogeneous geodesics in homogeneous pseudo-Riemannian manifolds

❦

Monday • 14:00–16:00 • Faculty of Sciences • Room 1

chaired by Eduardo Garcia-Rio

- *Franki Dillen* 14:00–14:40
  Lagrangian submanifolds of complex space forms
- *Roberto De Leo* 14:50–15:20
  Partially Isometric Immersions and Free Maps
- *Miguel Domínguez-Vázquez* 15:30–15:50
  Real hypersurfaces with constant principal curvatures in complex space forms

❦

MONDAY • 16:00–18:00 • FACULTY OF SCIENCES • ROOM 1

chaired by Jiří Vanžura

- *Jin-ichi Itoh* 16:00–16:30
  Cut locus structures on graphs
- *Anton Galaev* 16:40–17:10
  Pseudo-Riemannian manifolds with recurrent spinor fields
- *María Asunción Jiménez Grande* 17:15–17:35
  The Liouville equation with boundary corners.
- *Alena Vanžurová* 17:40–18:00
  Curvature homogeneous spaces of type (1,3)

Representation Theory in Differential Geometry

MONDAY • 9:00–11:00 • FACULTY OF SCIENCES • ROOM 2

chaired by M.G. Eastwood

- *Colleen Robles* 9:00–9:30
  Homological Rigidity of Schubert Varieties in Compact Hermitian Symmetric Spaces
- *Martin Kolář* 9:40–10:10
  Chern-Moser operators and symmetries of Levi degenerate manifolds
- *Boris Doubrov* 10:20–10:50
  On the integrability of symplectic Monge-Ampére equations

❦

MONDAY • 11:00–13:00 • FACULTY OF SCIENCES • ROOM 2

chaired by M.G. Eastwood

- *Matthias Hammerl* 11:10–11:40
  Coupling solutions of BGG-equations in conformal spin geometry
- *Alexandr Medvedev* 11:50–12:10
  Geometry of systems of third order ODEs and conformal geometry
- *Dennis The* 12:20–12:40
  Conformal geometry of surfaces in the Lagrangian-Grassmannian and 2^{nd} order PDE

❦

MONDAY • 14:00–16:00 • FACULTY OF SCIENCES • ROOM 2

chaired by M.G. Eastwood

- *Christof Puhle* 14:00–14:20
  Riemannian manifolds with structure group PSU(3)
- *Mihaela Veronica Pilca* 14:25–14:45
  A Representation-Theoretical Proof of Branson's Classification of Elliptic Generalized Gradients
- *Natalia Bezvitnaya* 14:55–15:15
  Holonomy algebras of pseudo-quaternionic-Kählerian manifolds of non-zero scalar curvature

- *Josef Šilhan* 15:20–15:50
  Symmetries of invariant operators in conformal geometry

❦

MONDAY • 16:00–18:00 • FACULTY OF SCIENCES • ROOM 2

chaired by M.G. Eastwood

- *Yoshinori Machida* 16:00–16:20
  Monge-Ampere systems with Lagrange pairs
- *Konrad P. Schöbel* 16:30–16:50
  Algebraic Integrability Conditions for Killing Tensors on Constant Sectional Curvature Manifolds
- *Hironao Kato* 17:00–17:20
  Invariant flat projective structures and prehomogeneous vector spaces
- *Irina Peterburgsky* 17:30–17:50
  Generalization of I. Schur Algorithm for the case of Abstract Valued Functions and its Applications

Geometric Analysis and Mathematical Physics

Monday • 9:00–11:00 • Faculty of Sciences • Room 3

chaired by Serge Preston

- *Tom Mestdag* 9:00–9:40
  The inverse problem for Lagrangian systems with certain non-conservative forces
- *Donghua Shi* 9:50–10:30
  Engineering applications of discrete geometric mechanics: two examples
- *Nobutada Nakanishi* 10:40–11:00
  Lie 3-algebras with invariant metric

❦

Monday • 11:00–13:00 • Faculty of Sciences • Room 3

chaired by Serge Preston

- *Olga Krupková* 11:10–11:50
  Recent results in nonholonomic dynamics
- *Jose Navarro* 12:00–12:40
  The inverse problem for the calculus of variations on natural bundles
- *Vyacheslav Sedykh* 12:40–13:00
  On the topology of singularities of wave fronts

❦

Natural Operations and General Geometric Structures

Monday • 14:00–16:00 • Faculty of Sciences • Room 3

chaired by Josef Janyška

- *Jaroslav Hrdina* 14:00–14:30
  Lagrangean contact and CR structures and their morphisms.
- *Abraham David Smith* 14:40–15:00
  A (Proposed) Geometric Framework for Hydrodynamic Integrability
- *Hideya Hashimoto* 15:10–15:30
  Orthogonal almost complex structures of hypersurfaces of purely imaginary octonions.
- *Kazuyoshi Kiyohara* 15:40–16:00
  Singular semi-classical approximation on Liouville surfaces

❦

MONDAY • 16:00–18:00 • FACULTY OF SCIENCES • ROOM 3

chaired by Josef Janyška

- *Dávid Szeghy* 16:10–16:30
  The Maslov index for semi-Riemannian manifolds and its applications

Invited plenary talks

TUESDAY • 9:00–11:00 • FACULTY OF SCIENCES • ROOM 1

- *Franz Pedit* 9:00–9:50
  Integrable aspects of constant mean curvature surfaces
- *Lorenz Schwachhöfer* 10:00–10:50
  Hyperbolic Monopoles

❦

TUESDAY • 11:00–13:00 • FACULTY OF SCIENCES • ROOM 1

- *Vladimír Souček* 11:30–12:20
  On splitting operators in parabolic geometries

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Riemannian Geometry and Submanifolds

TUESDAY • 14:00–16:00 • FACULTY OF SCIENCES • ROOM 1

chaired by Zdeněk Dušek

- *Antonio Alarcon* 14:00–14:40
  Null Curves in C^3 and Calabi-Yau type problems
- *Takamichi Satoh* 14:50–15:20
  Curvature of Tangent Hyperquadric Bundles
- *Michal Marvan* 15:30–16:00
  Some classification results of integrable surfaces

❦

TUESDAY • 16:00–18:00 • FACULTY OF SCIENCES • ROOM 1

chaired by Antonio Alarcon

- *Stefan Rosemann* 16:10–16:40
  h-projective Kaehlerian metrics on compact complex manifolds
- *Bayram Sahin* 16:50–17:20
  Anti-invariant Riemannian maps from almost Hermitian manifolds
- *Siraj Uddin* 17:30–17:50
  Warped product pseudo-slant submanifolds of nearly Kaehler manifolds

Representation Theory in Differential Geometry

Monday • 14:00–16:00 • Faculty of Sciences • Room 2

chaired by M.G. Eastwood

- *Dmitri V. Alekseevsky* 14:10–15:00
  Geometry of Lagrangian Grassmanian and Monge-Ampere equations associated with a subdistribution of the contact distribution
- *Svatopluk Krýsl* 15:15–15:45
  Complex of symplectic twistor operators

❦

Tuesday • 16:00–18:00 • Faculty of Sciences • Room 2

chaired by M.G. Eastwood

- *Petr Somberg* 16:00–16:30
  Distributive Fourier transform and singular vectors in generalized Verma modules
- *Vojtěch Žádník* 16:35–17:05
  Lie sphere geometry in low dimensions
- *Jan Gregorovič* 17:15–17:35
  General construction of symmetric parabolic contact structures
- *Lenka Zalabová* 17:40–18:00
  Symmetries of parabolic geometries

Geometric Analysis and Mathematical Physics

Tuesday • 14:00–16:00 • Faculty of Sciences • Room 3

chaired by D. Krupka

- *Marcella Palese* 14:00–14:40
  Geometric aspects of Lagrangian field theories on gauge-natural bundles
- *Alberto Navarro* 14:50–15:10
  Lovelock's theorem revisited
- *Zbyněk Urban* 15:20–15:40

❦

Tuesday • 16:00–18:00 • Faculty of Sciences • Room 3

chaired by D. Krupka

- *Hiroshi Matsuzoe* 16:10–16:30
  Geometry for Tsallis statistics and centroaffine geometry
- *Radka Malíkova* 16:40–17:00
  A Generalization of Helmholtz Conditions to Differential Forms of Higher Degree
- *Martina Stolařová* 17:10–17:30
  Perpendicular pursuit motion as a model of nonholonomic mechanical system
- *Daisuke Tarama* 17:40–18:00
  Eigenvector Mapping for Manakov Equation on so(3) as a Branched Covering of P2(C)