3. Programme

Registration: during the welcome party and on Monday (8:30–9:00) in the room M4

Plenary Section

Invited Talks

Monday • 9:00-12:20 • Room: Aula

- *Frédéric Bourgeois* (9:00–9:50)
  Legendrian submanifolds, their homological invariants and their geography

Coffee break

- *Giuseppe Tinaglia* (10:30–11:20)
  The geometry of constant mean curvature surfaces in Euclidean space
- *Rod Gover* (11:30–12:20)
  Conformal submanifolds, invariants, geometric holography, and a big bang

Lunch (12:25–13:25)

• • •

Section B

Geometric Structures and Representation Theory:

Jan Slovák Birthday Session

Monday • 14:00–18:10 • Room: Aula

- *Peter Michor* (14:00–14:40)
  Unbalanced Riemannian Metric Transport and the Wasserstein-Ebin Metric
- *Vojtěch Žádník* (14:45–15:10)
  How to move along a trajectory

- *Josef Šilhan* (15:10–15:35)
  On a compatibility complex in conformal geometry

Coffee break

- *Michael Eastwood* (16:00–16:40)
  Calculus on complex projective space
- *Andreas Čap* (16:45–17:25)
  The Riemannian deformation sequence revisited
- *Vladimír Souček* (17:30–18:10)
  Strongly invariant differential operators on $Gr(3,3)$

Section E

Poisson Geometry

Monday • 14:00–18:10 • Room: F1

- *Pedro Henrique Carvalho Silva* (14:00–14:40)
  Homological reduction of Courant algebroids
- *Cornelia Vizman* (14:50–15:30)
  Weighted loops, coadjoint orbits, and characters

Coffee break

- *Dan Aguero* (16:00–16:40)
  On the geometry of complex Poisson bivectors
- *Shizhuo Yu* (16:45–17:25)
  Configuration Poisson groupoids of flags
- *Alfonso Tortorella* (17:30–18:10)
  A rigidity result for coisotropic submanifolds in contact geometry

• • •

Section A

Riemannian Geometry and Geometric Analysis

Monday • 14:00–18:15 • Room: G2

- *Makiko Tanaka* (14:00–14:40)
  Polars of compact Lie groups and antipodal sets
- *Naoya Ando* (14:45–15:25)
  Surfaces with flat normal connection in 4-dimensional space forms

Coffee break

- *Hiroyasu Satoh* (15:50–16:30)
  Conformal Vector Fields on Complex Hyperbolic Space
- *Jonas Martin Henkel* (16:35–17:05)
  The Laplace-Beltrami spectrum on Naturally Reductive Homogeneous Spaces
- *Diego Mojón-Álvarez* (17:10–17:40)
  Uniqueness of weighted Einstein manifolds in a conformal class
- *Mehmood Ur Rehman* (17:45–18:15)
  Primitive immersion of constant curvature of surfaces into flag manifolds

• • •

Section B

Geometric Structures and Representation Theory

Tuesday • 9:00–12:20 • Room: Aula

- *Dennis The* (9:00–9:30)
  Geometry of $(3, 6)$-distributions: structure and models
- *Aleksandra Borówka* (9:30–10:00)
  Complex quaternionic manifolds

Coffee break

- *Pawel Nurowski* (10:30–11:10)
  deSitter space and G_2
- *Katharina Neusser* (11:15–11:45)
  Cone structures and conic connections
- *Zhangwen Guo* (11:50—12:20)
  Fefferman-type constructions from path geometries to almost Grassmann structures

Section C

Geometry and Physics

Tuesday • 9:00–12:20 • Room: F1

- *Marcella Palese* (9:00–9:30)
  Symmetry transformations of extremals and higher conserved quantities
- *Ekkehart Winterroth* (9:30–10:00)
  Variational cohomology and topological solitons in Yang–Mills–Chern–Simons theories

Coffee break

- *Yuichiro Sato* (10:30–11:10)
  Construction of vacuum solutions in general dimensions using almost abelian Lie groups
- *Wijnand Steneker* (11:15–11:45)
  Variationality of conformal geodesics in dimension 3
- *Giorgi Khimshiashvili* (11:50—12:20)
  Maxwell"s conjecture for collinear point charges

Section A

Riemannian Geometry and Geometric Analysis

Tuesday • 9:00–11:45 • Room: G2

- *Homare Tadano* (9:00–9:30)
  An improvement of the Myers theorem via m-Bakry–Émery Ricci curvature with ε-range
- *Genki Ishikawa* (9:30–10:00)
  Stability analysis for the pseudo-Riemannian geodesic flows of step-two nilpotent Lie groups

Coffee break

- *Hiroshi Iriyeh* (10:30–11:10)
  The intersection of two real flag manifolds in a complex flag manifold

- *Mario Julián Rodríguez Sánchez-Toca* (11:15–11:45)
  Curvature-adapted hypersurfaces in symmetric spaces of non-compact type

Lunch (12:25–13:25)

• • •

Section B

Geometric Structures and Representation Theory

Tuesday • 13:30–14:00 • Room: Aula

- *Diego Artacho* (13:30–14:00)
  Generalised Spin Structures

Section C

Geometry and Physics

Tuesday • 13:30–14:00 • Room: F1

- *Jaroslaw Kopinski* (13:30–14:00)
  Conformal geometry of spacetimes with prescribed asymptotic behavior

Section D

Finsler Geometry

Tuesday • 13:30–14:00 • Room: G2

- *Qiaoling Xia* (13:30–14:00)
  On almost square Ricci solitons

• • •

Poster Session

Tuesday • 14:00–15:00 • Room: M3

Hamza Benachour, Weighted flat translation surfaces in Minkowski 3-space with radial density
Martin Doležal, Cartan connection of 3-link snake robot model
Steven Greenwood, Lorenzian homogeneous structures with indecomposable holonomy
Chen-Hsu Chien, Dressing Field Method and Cartan Geometry
Elias Knack, Invariant Spinors on S^{15} as a Homogeneous Sphere
Hubert Kołcz, Lie Algebraic Structures in Quantum Error Correction for Measurement-Based Quantum Computing: A Poisson Geometric Approach to Prototype Validation
Mauro Mantegazza, Jets in Noncommutative Geometry
Abdelmalek Mohammed, Some geometric properties of the Newton transformations in space forms
Kinga Słowik, Basic Albanese maps of regular Riemannian foliations
Petr Vlachopulos, The Cheeger constant of curved tubes in space forms
Lenka Zalabová, Nilpotent algebras, control, and nonholonomic mechanisms

• • •

Section B

Geometric Structures and Representation Theory

Tuesday • 15:00–17:50 • Room: Aula

- *Giulia Dileo* (15:00–15:30)
  Anti-quasi-Sasakian manifolds as transversely Kähler manifolds

Coffee break

- *Igor Zelenko* (16:00–16:40)
  Generalized Pseudo-Product structures and Finiteness of Type
- *Nicklas Day* (16:45–17:15)
  Rank 2 Distributions of Maximal Class: Harmonic Curvatures and Syzygies
- *Stefan Haller* (17:20–17:50)
  The eta invariant of $(2, 3, 5)$-distributions

Section C

Geometry and Physics

Tuesday • 15:00–17:50 • Room: F1

- *Timothy Moy* (15:00–15:30)
  Isomonodromic deformations and twistor geometry

Coffee break

- *Andrew Waldron* (16:00–16:40)
  Quantum Mechanics and Quantization
- *Hartwig Winterroth* (16:45–17:15)
  A constructive approach to generalized principal connections
- *Ioannis Chrysikos* (17:20–17:50)
  Decomposable solutions in eleven-dimensional supergravity

Section A

Riemannian Geometry and Geometric Analysis

Tuesday • 15:00–17:15 • Room: G2

- *Ángel Cidre Díaz* (15:00–15:30)
  Index of symmetry of 2-isotropy irreducible spaces

Coffee break

- *Ana Cristina Ferreira* (16:00–16:40)
  G_2^*-structures and their holonomy
- *Kyoji Sugimoto* (16:45–17:15)
  Antipodal sets of pseudo-Riemannian symmetric R-spaces

• • •

Plenary Section

Invited Talks

Wednesday • 9:00-12:20 • Room: Aula

- *Jeffrey Case* (9:00–9:50)
  Invariants of conformal manifolds and their submanifolds

Coffee break

- *Chiara Esposito* (10:30–11:20)
  Global Homotopies for HKR Theorems in Differential Geometry
- *Anton Galaev* (11:30–12:20)
  Holonomy of K-contact sub-Riemannian manifolds

Lunch (12:25–13:25)

Free afternoon – excursions

• • •

Section B

Geometric Structures and Representation Theory

Thursday • 9:00–12:20 • Room: M1

- *Alexander Zuevsky* (9:00–9:30)
  Recent developments in cohomology methods associated with vertex algebras
- *Jarah Fluxman* (9:30–10:00)
  The Unitary Irreducible Representations of the canonical Lifshitz Groups and their central extensions

Coffee break

- *Boris Kruglikov* (10:30–11:10)
  Global relative differential invariants are finitely generated (or perhaps not?)
- *Omid Makhmali* (11:15–11:45)
  The Beltrami theorem in three-dimensional sub-Riemannian geometry
- *Zhixiang Wu* (11:50–12:20)
  On pseudotensor categories

Section E

Poisson Geometry

Thursday • 9:00–12:30 • Room: F1

- *Naoki Kimura* (9:00–9:30)
  Correspondence between Koszul-Vinberg structures and Poisson structures
- *Filip Moučka* (9:30–10:00)
  Beyond Poisson geometry: when a bivector field is symmetric

Coffee break

- *Tomoya Nakamura* (10:30–11:10)
  A generalization of Koszul-Vinberg manifolds
- *Martha Valentina Guarin Escudero* (11:15–11:45)
  Homotopy algebras associated with dg-manifolds
- *Chiara Esposito* (11:50–12:30)
  Equivariant formality and reduction

Section A

Riemannian Geometry and Geometric Analysis

Thursday • 9:00–12:20 • Room: G2

- *Alex Colling* (9:00–9:30)
  Quasi-Einstein manifolds and extremal horizons
- *Rosalia Rodriguez-Gigirey Villar* (9:30–10:00)
  Ricci solitons on four-dimensional Lorentzian Lie groups

Coffee break

- *Rui Albuquerque* (10:30–11:10)
  Geometry of G_2 and $Spin(7)$ twistor space
- *Tomasz Zawadzki* (11:15–11:45)
  Variations of metric that preserve a Riemannian submersion and geometry of its fibers

Lunch (12:25–13:25)

• • •

Section B

Geometric Structures and Representation Theory

Thursday • 14:00–15:50 • Room: M1

- *Ilka Agricola* (14:00–14:40)
  A new approach to the classification of almost contact metric manifolds via intrinsic endomorphisms
- *Malte Schulz* (14:45–15:15)
  Representation theory of curvature tensors and applications to GR
- *Efrain Basurto Arzate* (15:20–15:50)
  Prescribing the curvature tensor of torsion-free connections

Section G

Geometry of Information

Thursday • 14:00–15:50 • Room: G2

- *Daisuke Tarama* (14:00–14:30)
  Geodesic flows of Lie groups associated to statistical transformation models
- *Subrahamanian Moosath Karickamadom Sreekumara* (14:35–15:05)
  Geodesic-Based Interpolation using Gaussian Mixture Models
- *Dmitry Alekseevskiy* (15:10–15:50)
  Functional Architecture of Early Vision

Section F

Quantum Geometry

Thursday • 14:00–15:50 • Room: F1

- *Rita Fioresi* (14:00–14:40)
  Reductions of Quantum Principal Bundles
- *Henrik Winther* (14:45–15:15)
  Higher order connections in noncommutative geometry
- *Alessandro Carotenuto* (15:20–15:50)
  Convex orders and quantum tangent spaces

Coffee break

Special section

Public lecture

Thursday • 17:00-18:00 • Room: M1

- *Jean-Pierre Bourguignon* (17:00–18:00)
  Geometry and Physics: a Long History of Mutual Inspiration and Missed Opportunities (online streaming)

• • •

Plenary Section

Invited Talks

Friday • 9:00-12:20 • Room: Aula

- *Anton Alekseev* (9:00–9:50)
  Symplectic structures and Virasoro actions on infinite dimensional Teichmüller spaces

Coffee break

- *Réamonn Ó Buachalla* (10:30–11:20)
  Quantum exterior algebras and torsion-free bimodule connections
- *Uwe Semmelmann* (11:30–12:20)
  Integrability of infinitesimal Einstein deformations on Kähler manifolds and symmetric spaces

Lunch (12:25–13:25)

• • •

Section B

Geometric Structures and Representation Theory

Friday • 14:00–18:05 • Room: M1

- *Boris Doubrov* (14:00–14:40)
  Cartan connections for scalar ODEs under point and fiber-preserving transformations
- *Andrey Krutov* (14:50–15:20)
  Clifford algebra analogue of Cartan's theorem for symmetric pairs

Coffee break

- *Arman Taghavi-Chabert* (15:50–16:20)
  Almost complex structures in projective and conformal geometries
- *Jan Gregorovič* (16:25–16:55)
  Models of 2-nondegerate CR hypersurfaces
- *Dario Di Pinto* (17:00–17:30)
  Anti-quasi-Sasakian manifolds: homogeneous structures and topological constraints
- *Svatopluk Krýsl* (17:35–18:05)
  Lefschetz map on symplectic spinor-valued forms

Section C

Geometry and Physics

Friday • 14:00–18:05 • Room: F1

- *Ozgur Kelekci* (14:00–14:30)
  Effect of T-duality with Torsion on Killing-Yano Forms
- *Evgeny Ferapontov* (14:40–15:20)
  Involutive scroll structures on solutions of 4D dispersionless integrable hierarchies

Coffee break

- *Owen Dearricott* (15:50–16:20)
  Edge-cone singularities on anti-self-dual Einstein spaces in dimension four and 3-Sasakian spaces in dimension seven
- *Henrik Naujoks* (16:25–16:55)
  Higher-power Harmonic Maps, Instantons and Yang-Mills Theory
- *Can Görmez* (17:00–17:30)
  Seven Sphere Quantization
- *Michal Marvan* (17:35–18:05)
  Voss surfaces in sine-Gordon hierarchies

Section F

Quantum Geometry

Friday • 14:00–17:30 • Room: G2

- *Keegan Flood* (14:00–14:30)
  Constructing Canonical Calculi
- *Fredy Díaz García* (14:40–15:10)
  The Dolbeault-Dirac operator for the irreducible quantum flag manifolds

Coffee break

- *Arnab Kumar Bhattacharjee* (15:50–16:20)
  q-deformation of Kostant differential for A-series irreducible quantum flag manifolds
- *Antonio Del Donno* (16:25–16:55)
  Principal bundles and differential structures in noncommutative geometry
- *Julius Benner* (17:00–17:30)
  Codifferential calculi and quantum homogeneous spaces