



*Geometry,
Mechanics and
Control Network
Infosheet*

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Network’s activities

XV International ICMAT Summer School on Geometry, Dynamics and Field Theory.
10–11 July 2023, Miraflores de la Sierra, Madrid, Spain.

Outstanding event

Dynamical Systems, Mechanics and Control: A workshop in honor to Anthony Bloch.
12–14 July 2023, Miraflores de la Sierra, Madrid, Spain.

XXXI International Fall Workshop on Geometry and Physics.
4–8 September 2023, Santiago de Compostela, Spain.

Other conferences

Quantum Information Theory in Quantum Field Theory and Cosmology.
4–9 June 2023, Banff, Canada.

Workshop and School on Complex Lagrangians, Integrable Systems, and Quantization.
5–9 June 2023, Oxford, United Kingdom.

Great Lakes Mathematical Physics Meeting.
9–11 June 2023, Oberlin, USA.

Geometry, Topology and Control System Design.
11–16 June 2023, Banff, Canada.

Colloquium on Finsler Geometry and its Applications.
11–16 June 2023, Debrecen, Hungary.

Machine Learning for Science: Mathematics at the Interface of Data-driven and Mechanistic Modelling.
11–17 June 2023, Oberwolfach, Germany.

Colloquium on Finsler Geometry and its Applications.
12 June–16 July 2023, Debrecen, Hungary.

Emergent Geometries from Strings and Quantum Fields.

12 June–28 July 2023, Firenze, Italy.

Nonsmooth Problems with Applications in Mechanics.

17–22 June 2023, Bedlewo, Poland.

Effective Theories in Classical and Quantum Particle Systems.

18–23 June 2023, Les Diablerets, Switzerland.

Analysis and Mathematical Physics.

19–21 June 2023, Stockholm, Sweden.

Sub-Riemannian Geometry and Beyond, III.

19–23 June 2023, Pisa, Italy.

Workshop BRIDGES: Special geometries and gauge theories.

19–23 June 2023, Pau, France.

15th International Workshop on Lie Theory and Its Applications in Physics.

19–25 June 2023, Varna, Bulgaria.

4th International Conference on Symmetry.

21–23 June 2023, Barcelona, Spain.

Correlations in Mathematical Quantum Mechanics.

21–23 June 2023, Copenhagen, Denmark.

Interplay between Geometric Analysis and Discrete Geometry.

25–30 June 2023, Oaxaca, Mexico.

Geometry and analysis of groups and manifolds.

26–30 June 2023, Pisa, Italy.

Trisectors Workshop 2023 Connections with Symplectic Topology.

26–30 June 2023, California, USA.

Differential Geometry and Mechanics.

28–30 June 2023, La Rochelle, France.

Dg-manifolds in Geometry and Physics.

3–7 July 2023, Paris, France.

From smooth to C^0 symplectic geometry: topological aspects and dynamical implications.

3–7 July 2023, Marseille, France.

“Dynamics, bifurcations and numerics”, dedicated to the memory of Claudia Wulff.

4–7 July 2023, Surrey, United Kingdom.

Numerical Methods in Theoretical Physics.

10–14 July 2023, Pohang, Korea.

Analysis of PDEs: Variational and Geometric Perspectives.

10–14 July 2023, Bonn, Germany.

Symplectic Singularities and Supersymmetric QFT.

10–21 July 2023, Amiens, France.

Emergent Geometries from Strings and Quantum Fields.

12–28 July 2023, Firenze, Italy.

Summer school of Geometry, Topology and Applications.

12 July–12 August 2023, Hradec Králové, Czech Republic.

Nonlinear PDEs: Recent Trends in the Analysis of Continuum Mechanics.

17–21 July 2023, Bonn, Germany.

Emergent Geometries from Strings and Quantum Fields.

19–22 July 2023, Firenze, Italy.

SIAM Conference on Control and Its Applications.

24–26 July 2023, Pennsylvania, USA.

XII International Symposium on Quantum Theory and Symmetries.

24–28 July 2023, Prague, Czech Republic.

Integrability, Dualities and Deformations.

24–28 July 2023, Durham, United Kingdom.

XXVII International Conference on Integrable Systems and Quantum Symmetries.

24–28 July 2023, Prague, Czech Republic.

Online CIMPA Course: "On representations of affine Lie superalgebras".

25–29 July 2023, Isfahan, Iran.

Applied and Computational Differential Geometry and Geometric PDEs.

30 July–4 August 2023, Banff, Canada.

20th International Workshop on Pseudo-Hermitian Hamiltonians in Quantum Physics.

31 July–4 August 2023, Istanbul, Turkey.

Summer School on Current Topics in Mathematical Physics.

31 July–4 August 2023, Warsaw, Poland.

VIASM-IAMP Summer School in Mathematical Physics.

1–5 August 2023, Quy Nhon, Vietnam.

Finite Dimensional Integrable Systems in Geometry and Mathematical Physics.

7–11 August 2023, Antwerp, Belgium.

Groups, Actions, and Geometries.

7–11 August 2023, Medford, USA.

Women in Mathematical Physics II.

13–18 August 2023, Banff, Canada.

Summer School on Differential Geometry.

14–25 August 2023, Hanoi, Vietnam.

Symplectic Paradise.

16–20 August 2023, Montana, USA.

12th International Conference on Mathematical Modeling in the Physical Sciences.

28–31 August 2023, Belgrade, Serbia.

Geometric Science of Information.

30 August–1 September 2023, Saint-Malo, France.

XLIII Dynamics Days Europe.

3–8 September 2023, Naples, Italy.

Classical and Quantum Mechanical Models of Many-Particle Systems.

3–8 September 2023, Oberwolfach, Germany.

Many-Body Quantum Systems.

10–15 September 2023, Oberwolfach, Germany.

Summer school in theoretical mechanics.

11–16 September 2023, Quiberon, France.

Geometric, Algebraic and Topological Methods in Quantum Field Theory.

17–23 September 2023, Villa de Leyva, Colombia.

Women in Geometry 3.

24–29 September 2023, Banff, Canada.

Complex Lagrangians, Mirror Symmetry, and Quantization.

15–20 October 2023, Banff, Canada.

Lagrangian Multiform Theory and Pluri-Lagrangian Systems.

22–27 October 2023, Banff, Canada.

Differential Galois Theory and Applications to Mechanics (CIMPA School).

23 October–3 November 2023, Santo Domingo, Dominican Republic.

On Symmetries of Differential and Difference Equations and Their Applications.

25–27 October 2023, Stellenbosch, South Africa.

Mini-Workshop: Standard Subspaces in Quantum Field Theory and Representation Theory.

29 October–3 November 2023, Oberwolfach, Germany.

Online Courses

ICTP–PWF Latin America - Advanced Lectures on Theoretical Physics: Quantum Field

Theory I.

11 September 2023–31 January 2024.

Virtual seminars

Online Seminar of the Geometry, Mechanics and Control Thematic Network.

Instituto de Ciencias Matemáticas' seminars on these topics.

Seminar of International Association of Mathematical Physics.

Virtual Seminar on Geometry with Symmetries.

On the topic of Lie group actions in Riemannian geometry.

Mathematics and High Energy Physics Seminars.

ICTP-PWF Latin America-Physics Latam New Seminar Series.

Control and Optimization Seminar.

Louisiana State University.

One World IAMP Mathematical Physics Seminar.

Differential Geometry Seminar Torino.

Organised by the Differential Geometry groups of Università di Torino and Politecnico di Torino.

Symplectic Zoominar.

Online Seminar organized by CRM-Montréal, Princeton/IAS, Tel Aviv, and Paris.

ICTP Virtual Seminars.

Online Seminar organized by International Centre for Theoretical Physics.

Theory of Duality Seminar.

Department of Mathematical Methods in Physics, University of Warsaw.

Geometry and Topology Online.

Warwick Mathematics Institute.

Job offers, fellowships and supports

Ph.D. offers

Research Assistant in Algebraic Geometry .

Leibniz University Hannover, Hannover, Germany

Closing date: 11 June 2023.

PhD candidate in Differential Geometry .

University of Luxembourg, Belval, Luxembourg

Closing date: 15 June 2023.

PhD Positions in Mathematics and Computer Science.

University of Warsaw, Warsaw, Poland

Closing date: 18 June 2023.

PhD Position in Geometric Analysis .

Vrije Universiteit Brussel, Brussels, Belgium

Closing date: 22 June 2023.

PhD candidate in Geometry.

KU Leuven, Leuven, Belgium

Closing date: 30 June 2023.

PhD position in Geometry and Probability.

University of Strasbourg, Strasbourg, France

Closing date: 2 July 2023.

PhD position in Deep Learning.

University of Vienna, Vienna, Austria

Closing date: 15 July 2023.

PhD position in Analysis/Geometry .

University of Fribourg, Fribourg, Switzerland

Closing date: 30 August 2023.

PhD candidate in Tensor Calculus.

Czech Technical University, Prague, Czech Republic

Closing date: 25 October 2023.

PhD positions.

TU Delft, Delft, The Netherlands

Closing date: Open until filled.

Postdoctoral fellowships

Postdoctoral position in Mean Field Games.

University of Durham, Durham, United Kingdom

Closing date: 7 June 2023.

Postdoctoral positions in Stochastic Dynamics.

Technical University of Munich, Munich, Germany

Closing date: 15 June 2023.

Postdoctoral position in Geometric Group Theory.

Karlsruhe Institute of Technology, Karlsruhe, Germany

Closing date: 22 June 2023.

Postdoctoral Fellow in Discretization of Geometric Structures.

University of Edinburgh, Edinburgh, United Kingdom

Closing date: 26 June 2023.

Postdoctoral position in Fluid Dynamics.

University of Bielefeld, Bielefeld, Germany

Closing date: 28 June 2023.

Postdoctoral Fellowship in Environmental Applications of Mathematics .

Centre de Recerca Matemàtica, Barcelona, Spain

Closing date: 30 June 2023.

Postdoctoral position in Geometry and Probability.

University of Strasbourg, Strasbourg, France

Closing date: 2 July 2023.

Postdoctoral position in Mathematical Analysis.

University of Luxembourg, Belval, Luxembourg

Closing date: 15 July 2023.

Postdoctoral fellowship in Applied Mathematics.

Fundação Getulio Vargas, Rio de Janeiro, Brazil
Closing date: 6 August 2023.

Postdoctoral position in PDE Analysis.
National Taiwan University, Taipei, Taiwan
Closing date: 31 August 2023.

Postdoctoral position in Scientific Computing.

Offers for researchers

2 Professor positions in Applied Mathematics.

University of Leicester, Leicester, United Kingdom
Closing date: 3 June 2023.

Lecturer in Mathematics.
University of Dundee, Dundee, United Kingdom
Closing date: 11 June 2023.

Senior lecturer or associate professor in Optimization.

Chalmers University of Technology, Gothenburg, Sweden
Closing date: 11 June 2023.

Professor in Applied Mathematics.
The University of Melbourne, Parkville, Australia
Closing date: 16 June 2023.

Professorship in Pure Mathematics.
University of Cambridge, Cambridge, United Kingdom

Offers for visiting researchers

Abel Visiting Scholar Program.
International Mathematical Union.
Postdoctoral mathematician to visit a research collaborator for a month.
Closing date: 31 August, 31 December and 30 April.

Simons Visiting Professors at Mathematisches Forschungsinstitut Oberwolfach.
Oberwolfach, Germany.
Junior or senior scientists from outside Europe.
Closing date: Open.

Focused research groups in Banff, Canada.
Banff International Research Station, Canada.
Up to 8 researchers for periods of 1 to 2 weeks.
Closing date: Minimum 4 months before the event.

Research in Teams in Banff, Canada.
Banff International Research Station, Canada.
Teams of 2 to 4 researchers for 1 to 2 weeks.
Closing date: Minimum 4 months before the event.

Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland
Closing date: Open until filled.

Humboldt research fellowship for postdoctoral researchers.
Alexander von Humboldt Foundation
Closing date: Open.

Closing date: 19 June 2023.

Lecturer in Applied Mathematics.
University of Leicester, University of Leicester, United Kingdom
Closing date: 5 July 2023.

Open rank faculty positions in Applied Mathematics .
Fundação Getulio Vargas, Rio de Janeiro, Brazil
Closing date: 6 August 2023.

Assistant/Associate Professor of Mathematics.
Westminster College, Fulton, United States of America
Closing date: Open Until Filled.

Faculty positions in Mathematics.
Bilkent University, Ankara, Turkey
Closing date: Open Until Filled.

International Research in Groups at CIRM.
Centre International de Rencontres Mathématiques (CIRM), France.
Small groups of researchers for 2 to 4 weeks.
Closing date: Open at any time.

Research in Residence at CIRM.
Centre International de Rencontres Mathématiques (CIRM), France.
2 to 4 researchers.
Closing date: Open at any time.

Visiting scholar opportunity in Cambridge.
University of Cambridge, United Kingdom.
Scholars and fellows for development of research, teaching and collaboration.
Closing date: Open.

Small team visiting the CRM.
Centre de Recerca Matemàtica, Catalonia, Spain.
Postdoctoral positions and research in pairs.

Closing date: Any time between 6 and 12 months before the start of the desired stay.

Visiting research fellow in Kent State Univer-

Financial support

IMU Volunteer Lecturer Program.

Financial assistance to universities in developing countries to host a 3-4-week intensive course.

Deadline: 1 June and 1 September 2023.

CIMPA-ICTP Fellowships for "Research in Pairs".

For researchers based in a developing country to collaborate with a colleague in Europe.

Deadline: 10 July 2023.

IMU Conference support program.

For conferences in developing or economically disadvantaged countries.

Deadline: 15 July, 1 October 2023 and 15 April 2024.

Thematic programs at MSRI.

Mathematical Sciences Research Institute, Berkeley, United States.

Deadline: 1 October, 1 December and 1 March every year. Three years ahead.

Hot topics Workshop at MSRI.

Mathematical Sciences Research Institute, Berkeley, United States.

Deadline: 1 October, 1 December and 1 March every year every year.

Summer graduate schools at MSRI.

Mathematical Sciences Research Institute, Berkeley, United States.

Interesting publication

Special Issue "Contact Geometry: Reduction, Symmetries and Applications".

Preprints

Network's members

Ana Casimiro and César Rodrigo: *Cayley-Menger extension of metrics on affine spaces.*

2305.02183

[math.MG, math-ph, math.MP]

Alberto Enciso, Wadim Gerner and Daniel Peralta-

sity.

Mathematics Department-KSU, Ohio, USA.

Visiting for scholar researchers.

Closing date: Open.

Deadline: 1 October, 1 December and 1 March every year every year.

CIMPA Schools call for proposals.

Research schools in developing countries.

Deadline: 10 October 2023.

Workshop at CIRM.

Centre International de Rencontres Mathématiques, France.

Deadline: Open at any time.

CIMPA Online courses program.

Geographic areas of activities of CIMPA (Africa, Central or South America, Asia).

Deadline: Open all year.

Support for workshop organization at Banff.

Banff International Research Station.

Deadline: No precise deadline.

Proposal of a workshop in the Mathematisches Forschungsinstitut Oberwolfach.

Oberwolfach, Germany.

Deadline: Open.

Hosting a workshop at AIMS South Africa.

Contributions for workshops about AIMS's research focus areas.

Deadline: No precise deadline.

Section "Physics and Symmetry/Asymmetry".

Deadline: Deadline for submissions: 15 July 2023.

Salas: *Optimal metrics for the first curl eigenvalue on 3-manifolds.*

2305.06681

[math.DG]

Daniel Reyes, Piergiulio Tempesta and Giorgio

Tondo: *Partial separability and symplectic-Haantjes manifolds.*

2305.06844

[math-ph, math.MP, math.SG]

V. M. Jiménez and M. De León: *New notions of uniformity and homogeneity of Cosserat media.*

2305.14261

Network's collaborators

Nikolay Martynchuk and San Vũ Ngoc: *On the symplectic geometry of A_k singularities.*

2305.01814 (version 2)

[math.SG, math.DG, math.DS]

Jack Borthwick and Niky Kamran: *Boundary rigidity, and non-rigidity, of projective structures.*

2305.02266 (version 2)

[math.DG]

Henrique Bursztyn, Thiago Drummond and Clarice Netto: *Courant-Nijenhuis algebroids.*

2305.03131

[math.DG, math.SG]

Joshua Pickard, Cooper Stansbury, Can Chen, Amit Surana, Anthony Bloch and Indika Rajapakse: *Kronecker Product of Tensors and Hypergraphs.*

2305.03875

[math.DS, math.SP]

David L. Johnson: *Orthogonal coordinates on 4 dimensional Kähler manifolds.*

2305.05083

[math.DG]

N. Aizawa and Ren Ito: *Integration on minimal \mathbb{Z}_2^2 -superspace and emergence of space.*

2305.07836

[math-ph, math.MP]

Óscar García-Prada: *Vinberg pairs and Higgs bundles.*

2305.08202

[math.AG, math.DG]

D. Batic, P. Guha and A. Ghose Choudhury: *Emergence of the Gambier equation in cosmology.*

2305.08364

[gr-qc, math-ph, math.MP]

Kurusch Ebrahimi-Fard and Frédéric Patras: *Effective Action in Free Probability.*

2305.08871

[math-ph, math.CO, math.MP, math.PR, math.RA]

[math.DG, math-ph, math.MP]

Alexandre Anahory Simões, Leonardo Colombo, Manuel de León, Modesto Salgado and Silvia Souto: *Jacobi structure for dissipative mechanical systems on Lie Algebroids.*

2305.18735

[math-ph, math.MP, math.SG]

Andronikos Paliathanasis and P. G. L. Leach: *Lie symmetry classification for the 1+1 and 1+2 generalized Zoomeron equations.*

2305.09416

[math-ph, math.AP, math.MP]

Şengül Kuru, Javier Negro and Sergio Salamanca: *Quantum, classical symmetries and action-angle variables by factorization of superintegrable systems.*

2305.10147

[math-ph, math.MP]

Bernhard Maschke and Arjan van der Schaft: *Linear Boundary Port-Hamiltonian Systems with Implicitly Defined Energy.*

2305.13772

[math.OC]

Siddhartha Ganguly, Souvik Das, Debasish Chatterjee and Ravi Banavar: *A discrete-time Pontryagin maximum principle under rate constraints.*

2305.14940

[math.OC, cs.SY, eess.SY]

Alexander Davydov, Veronica Centorrino, Anand Gokhale, Giovanni Russo and Francesco Bullo: *Contracting Dynamics for Time-Varying Convex Optimization.*

2305.15595

[math.OC, cs.SY, eess.SP, eess.SY]

Giuseppe Gaeta and Miguel Ángel Rodríguez: *Integrable Ito equations and properties of the associated Fokker-Planck equations.*

2305.15831

[math-ph, math.MP, nlin.SI]

Matthew D. Kvalheim and Philip Arathoon: *Linearizability of flows by embeddings.*

2305.18288

[math.DS, cs.SY, eess.SY, math.OC]

Santiago Capriotti: *Chern-Simons field theory on the general affine group, 3d-gravity and the extension of Cartan connections.*

2305.18688

[math-ph, math.DG, math.MP]

Links of interest

Geometry, Mechanics and Control Network

Journal of Geometric Mechanics

International Mathematical Union (IMU)
Newsletter - March 2023

International Association of Mathematical
Physics Bulletin - April 2023

European Mathematical Society

Royal Spanish Mathematical Society
(RSME)

International Association of Mathematical
Physics

Open Access American Institute of Mathe-
matical Sciences (AIMS) Journal

International Centre for Theoretical Physics
(ICTP)

European Research Council

European Commission - Research and Inno-
vation

International Center of Pure and Applied
Mathematics (CIMPA)

Mathematical and physical sciences funding,
National Science Foundation, USA

Open Access Mathematics Journals

Open Access Physics Journals

Societat Catalana de Matemàtiques (SCM)
journal on Mathematics

SIAM Activity Groups award various prizes

International Mathematical Union Awards
and Prizes

Other Prizes of International Mathematical
Union

American Mathematical Society Prizes and
Awards

Mathematical Association of America
Awards

Association for Women in Mathematics
Awards

IEEE Control Systems Society Awards

Royal Society of London Premier Medals and
Awards

London Mathematical Society Prizes

The Shaw Prize

The Henri Poincaré Prize

European Mathematical Society Funding and
Sponsorship

The British Royal Society Grants

The British Royal Society's medals and
award

NOTE: If you want to include information in this info-sheet, please send it to
gmactivities@gmail.com