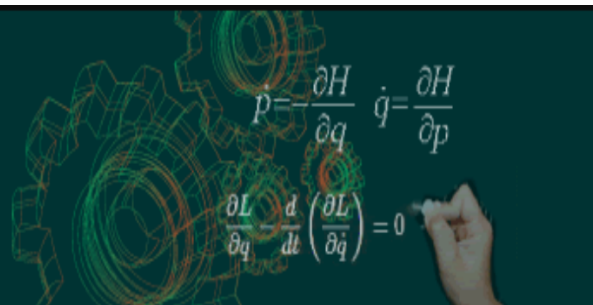




# GMC Network



## *Geometry, Mechanics and Control Network Infosheet*

January 2023

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### Network's activities

**Special session on Differential Geometry, Mathematical Physics and Control Theory at Young Researchers Conference of the Royal Spanish Mathematical Society.**  
9 February 2023, León, Spain.

**17th International Young Researchers Workshop on Geometry, Mechanics and Control.**  
29–31 March 2023, KU Leuven, Belgium.

### Other conferences

**Young Geometric Group Theory XI.**  
13–17 February 2023, Münster, Germany.

**New Frontiers of Celestial Mechanics: Theory and Applications.**  
15–17 February 2023, Padua, Italy.

**New Trends in Geometric and Variational PDEs.**  
20–22 February 2023, Trento, Italy.

**Gauge Fields in Arithmetic, Topology and Physics.**  
6–10 March 2023, Edinburgh, United Kingdom.

**Crossroads of Representation Theory, Geometry and Higher Structures.**  
13–26 March 2023, Puerto Madryn, Argentina.

**Interactions between Poisson Geometry and Quantisation.**  
20–24 March 2023, Göttingen, Germany.

**SuperGeometry and SuperModuli.**  
27–31 March 2023, New York, United States.

**Anosov Dynamics.**  
10–14 April 2023, Marseille, France.

**8th International Conference on Control and Robotics Engineering.**  
14–16 April 2023, Niigata, Japan.

**Higher Structures in Geometry and Mathematical Physics.**

17–21 April 2023, Marseille, France.

**International Conference on Mathematical Methods in Physics.**

24–28 April 2023, Marrakesh, Morocco.

**Modern Problems of Mathematics and Mechanics.**

26–28 April 2023, Baku, Azerbaijan.

**School on conformal symplectic dynamics and related fields.**

8–12 May 2023, Marseille, France.

**Sixth International Conference on Physics, Mathematics and Statistics.**

20–22 May 2023, Sanya, China.

**Mathematical Physics in Quantum Technology: From Finite to Infinite Dimensions.**

22–26 May 2023, Edinburgh, United Kingdom.

**The Geometry, Algebra, and Physics of Higgs Bundles.**

28 May–2 June 2023, Banff, Canada.

**Groups and Dynamics in Geometry.**

29 May–2 June 2023, Ascona, Switzerland.

**Geometry, Topology and Control System Design.**

11–16 June 2023, Banff, Canada.

**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.**

11–16 June 2023, Debrecen, Hungary.

## Virtual seminars

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

Instituto de Ciencias Matemáticas' seminars on these topics.

**One World IAMP Mathematical Physics Seminar.**

Seminar of International Association of Mathematical Physics.

**Virtual Seminar on Geometry with Symme-**

**15th International Workshop "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.

**Geometry and analysis of groups and manifolds.**

26–30 June 2023, Pisa, Italy.

**Dg-manifolds in Geometry and Physics.**

3–7 July 2023, Paris, France.

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

3–7 July 2023, Marseille, France.

**Emergent Geometries from Strings and Quantum Fields.**

12–28 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.

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

25–29 July 2023, Isfahan, Iran.

**Geometric, Algebraic and Topological Methods in Quantum Field Theory.**

31 July– 9 August 2023, Villa de Leyva, Colombia.

**tries.**

On the topic of Lie group actions in Riemannian geometry.

**Control and Optimization Seminar.**

Louisiana State University.

**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**

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### **Ph.D. offers**

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#### **PhD position in Discrete Mathematics.**

Umeå university, Umeå, Sweden

Closing date: 7 February 2023.

#### **PhD candidate in Algebraic Geometry.**

Universiteit Leiden, Leiden, Netherlands

Closing date: 17 February 2023.

#### **PhD position in Algebra and Geometry.**

University of Gothenburg, Gothenburg, Sweden

Closing date: 24 February 2023.

#### **PhD position in Spectral Theory of Relativistic Quantum Hamiltonians.**

Loughborough University, Loughborough, UK

Closing date: 28 February 2023.

#### **3 PhD positions in Mathematics.**

University of Augsburg, Augsburg, Germany

Closing date: 28 February 2023.

#### **PhD Position in Plasma Modelling.**

KU Leuven, Leuven, Belgium

Closing date: 31 March 2023.

#### **PhD positions in Optimal Transportation.**

Lagrange Mathematics and Computation Center, Paris, France

Closing date: 30 April 2023.

#### **PhD position in Differential Geometry.**

Université libre de Bruxelles, Brussels, Belgium

Closing date: 31 May 2023.

#### **PhD position in Modeling Fracture of Metamaterials.**

ETH Zurich, Zurich, Switzerland

Closing date: Open until filled.

#### **PhD positions.**

TU Delft, Delft, The Netherlands

Closing date: Open until filled.

### **Postdoctoral fellowships**

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#### **Postdoctoral Fellowship in Algebraic Geometry and Singularity Theory.**

Basque Center of Applied Mathematics, Bilbao, Spain

Closing date: 3 February 2023.

#### **Postdoctoral position in Mathematical Physics.**

University of Edinburgh, Edinburgh, United Kingdom

Closing date: 3 February 2023.

#### **Postdoctoral position in Quantum Field Theory.**

University of Edinburgh, Edinburgh, United Kingdom

Closing date: 9 February 2023.

#### **Postdoctoral position in Mathematical Physics.**

Aix-Marseille University, Marseille, France

Closing date: 15 February 2023.

#### **Postdoctoral position in Optimal Control.**

University of Udine, Udine, Italy

Closing date: 24 February 2023.

#### **Postdoctoral position in Dynamical Systems.**

University of New South Wales, Sydney, Australia

Closing date: 27 February 2023.

#### **Postdoc in Variational Problems for Curved Surfaces.**

Catholic University of Louvain, Louvain-la-Neuve, Belgium

Closing date: 28 February 2023.

#### **Postdoctoral positions in Mathematics and Statistics.**

Aarhus University, Aarhus, Denmark

Closing date: 1 March 2023.

#### **Postdoctoral Fellowship in Quantum Many-Body Problems.**

Basque Center for Applied Mathematics, Bilbao, Spain

Closing date: 14 April 2023.

**Postdoctoral positions in Optimal Transportation.**

Lagrange Mathematics and Computation Center, Paris, France

Closing date: 30 April 2023.

**Offers for researchers**

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**Associate Professor in Pure Mathematics.**

University of Utrecht, Utrecht, Netherlands

Closing date: 7 February 2023.

**Assistant Professor in Mathematics .**

Heriot-Watt University, Edinburgh, United Kingdom

Closing date: 19 February 2023.

**Assistant Professor in Mathematical Sciences.**

University of Cincinnati, Cincinnati (OH), United States of America

Closing date: 20 February 2023.

**Full Professorship (W3) in Pure Mathematics.**

Heidelberg University, Heidelberg, Germany

Closing date: 28 February 2023.

**Professor in Computational Algebra.**

The University of Sydney, Camperdown, Australia

**Offers for visiting researchers**

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**Abel Visiting Scholar Program.**

International Mathematical Union.

Postdoctoral mathematician to visit a research collaborator for a month.

Closing date: 31 December, 30 April and 31 August.

**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.

**Postdoctoral Fellow in PDEs and Mathematical Physics.**

Université Libre de Bruxelles, Brussels, Belgium

Closing date: 30 May 2023.

**Humboldt research fellowship for postdoctoral researchers.**

Alexander von Humboldt Foundation

Closing date: Open.

Closing date: 1 March 2023.

**Senior academic staff Differential Geometry and Dynamical Systems.**

University of Antwerp, Antwerp, Belgium

Closing date: 20 March 2023.

**Assistant Professor in Algebra, Analysis and Geometry.**

Université Côte d'Azur, Nice, France

Closing date: 31 March 2023.

**Tenure-track position in Mathematics.**

Nanjing University, Nanjing, China

Closing date: 31 May 2023.

**Assistant/Associate Professor of Mathematics.**

Westminster College, Fulton (MO), United States of America

Closing date: Open Until Filled.

Closing date: Minimum 4 months before the event.

**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 University.

Mathematics Department-KSU, Ohio, USA.

Visiting for scholar researchers.

Closing date: Open.

## Financial support for research projects and conferences

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### Thematic programs at MSRI.

Mathematical Sciences Research Institute, Berkeley, United States.

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

### Hot topics Workshop at MSRI.

Mathematical Sciences Research Institute, Berkeley, United States.

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

### Summer graduate schools at MSRI.

Mathematical Sciences Research Institute, Berkeley, United States.

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

### IMU Volunteer Lecturer Program.

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

Deadline: 15 March, 1 June and 1 September 2023.

### IMU Conference support program.

For conferences in developing or economically disadvantaged countries.

Deadline: 15 April, 15 July and 1 October 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.

### 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.

## Interesting publication

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*Special Issue "Contact Geometry: Reduction, Symmetries and Applications". A special issue of Symmetry.*

Section "Physics and Symmetry/Asymmetry".

MDPI Open Access Journals.

Editor: Cristina Sardon.

Deadline for submissions: 15 July 2023.

## Preprints

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### Network's members

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Arnoldo Guerra IV and Narciso Román-Roy: *More insights into symmetries in multisymplectic field theories.*

2301.01255

[math-ph, hep-th, math.MP]

Efstathios Stratoglou, Alexandre Anahory Simões, Anthony Bloch and Leonardo J. Colombo: *Virtual Affine Nonholonomic Constraints.*

2301.03890

[math.OC, cs.SY, eess.SY, math-ph, math.MP]

Pol Mestres and Jorge Cortés: *Feasibility and Regularity Analysis of Safe Stabilizing Controllers under Uncertainty*.

2301.04603

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

Julio Guerrero, Antonio Sojo, Alberto Mayorgas and Manuel Calixto: *Schmidt decomposition of parity adapted coherent states for symmetric multi-*

*quDits*.

2301.09193

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

Jaap Eising and Jorge Cortés: *When sampling works in data-driven control: Informativity for stabilization in continuous time*.

2301.10873

[math.OC]

## Network's collaborators

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Li Guo, Sylvie Paycha and Bin Zhang: *Locality Galois groups of meromorphic germs in several variables*.

2301.02300

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

G. S. Venkatesh and Kurusch Ebrahimi-Fard: *A Formal Power Series Approach to Multiplicative Dynamic Feedback*.

2301.04949

[math.OC]

N. Aizawa, R. Ito, Z. Kuznetsova and F. Toppan: *New aspects of the  $Z_2 \times Z_2$ -graded 1D superspace: induced strings and 2D relativistic models*.

2301.06089

[hep-th, math-ph, math.MP]

Alexander Kilian, Bernhard Maschke, Andrii Mironchenko and Fabian Wirth: *Infinite-dimensional port-Hamiltonian systems with a stationary interface*.

2301.08967

[math.AP, math.OC]

David Marín Pérez, Jean-François Mattei and Eliane Salem: *Topology of singular foliation germs in  $\mathbb{C}^2$* .

2301.10698

[math.CV, math.DS, math.GT]

## Links of interest

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Geometry, Mechanics and Control Network

Journal of Geometric Mechanics - Current Issue

International Mathematical Union (IMU) Newsletter - November 2022

International Association of Mathematical Physics Bulletin - October 2022

European Mathematical Society

Royal Spanish Mathematical Society (RSME)

International Association of Mathematical Physics

Open Access American Institute of Mathematical Sciences (AIMS) Journal

International Centre for Theoretical Physics (ICTP)

European Research Council

European Commission - Research and Innovation

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 Group on Control and Systems Theory Prize

SIAM Activity Group on Control and Systems Theory Best SICON Paper Prize

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](mailto:gmactivities@gmail.com)