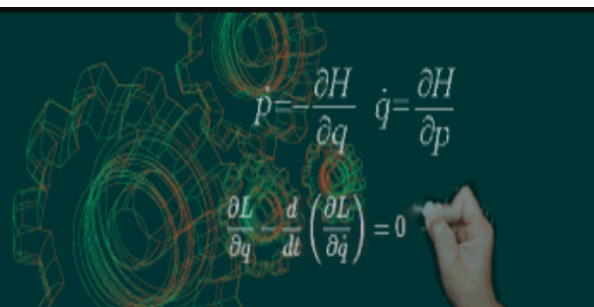




# GMC Network



## *Geometry, Mechanics and Control Network Infosheet*

August 2021

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### Network's activities

**Special Session “Geometry, Mechanics, Control and its Interconnections” at VI Latin American Congress of Mathematicians (Virtual format).**

13–17 September 2021, Montevideo, Uruguay.

**XVI Young Researchers Workshop in Geometry, Mechanics and Control (Face-to-face format).**

1–3 December 2021, Barcelona, Spain.

### Virtual seminars

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

Instituto de Ciencias Matemáticas' seminars on these topics.

**Online Seminar on Geometry, Dynamics and Mechanics.**

A series of online seminars on these topics.

**Colloquium on Geometry and Physics.**

Online colloquium about interface of the two fields.

**One World IAMP Mathematical Physics Seminar.**

Seminar of International Association of Mathematical Physics.

**Virtual Seminar on Geometry with Symmetries.**

On the topic of Lie group actions in Riemannian geometry.

**Utrecht Geometry Centre Seminar.**

Mathematical Institute, Utrecht University.

**Differential Geometry Seminar Torino.**

CRM-Montreal, Princeton/IAS, Tel Aviv, and Paris Seminar.

**Latin American Seminar on Differential Geometry.**

Virtual seminar aims to establish contact with several research groups and mathematicians in Latin America.

**ICMAT Geometry Seminar.**

Instituto de Ciencias Matemáticas' seminars on algebraic and differential geometry.

### **Symplectic Zoominar.**

Online Seminar organized by University of Torino.

### **Geometry and Topology Online.**

Warwick Mathematics Institute.

### **Regensburg Low-Dimensional Geometry and**

## **Conferences**

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### **Summer school on Differential Geometry in Mechanics.**

5–11 September 2021, Brittany, France.

### **XXIX International Fall Workshop on Geometry and Physics.**

7 – 10 September 2021, Covilhã, Portugal.

### **Second IMA Conference on Mathematics of Robotics (Online).**

8 – 10 September 2021, Manchester, United Kingdom.

### **Summer School in Mathematical Physics 2020.**

13–17 September 2021, Munich, Germany.

### **The unity of mathematics A conference in honour of Sir Michael Atiyah.**

21–23 September 2021, Cambridge, United Kingdom.

### **SIAM Conference on Geometric and Physical Modeling.**

27–29 September 2021, California, United States.

### **Quantum Field Theory at the Boundary.**

27 September– 8 October 2021, Mainz, Germany.

### **Differential Geometry, Billiards, and Geometric Optics.**

4–8 October 2021, Luminy, France.

## **Job offers, fellowships and supports**

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

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#### **PhD position in computational ecology.**

Umea University, Umea, Sweden

**Closing date: 1 September 2021.**

#### **PhD student in mathematics.**

Uppsala University, University, Sweden

**Closing date: 10 september 2021.**

#### **PhD position in Combinatorial Optimization with Uncertainty.**

### **Topology Seminar.**

About arithmetic geometry and global analysis.

### **Theory of Duality Seminar.**

Department of Mathematical Methods in Physics, University of Warsaw.

### **Geometric structures and foliations.**

18–22 October 2021, Luminy, France.

### **Quantum trajectories fall school.**

18–22 October 2021, Toulouse, France.

### **CIMPA School on Complex Analysis, Geometry and Dynamics.**

25 October–6 November 2021, Urgench and Tashkent, Uzbekistan.

### **International Online Conference on Differential Equations, Control and Optimization.**

27–30 October 2021, Istanbul, Turkey.

### **8th International Conference on Theoretical and Applied Physics.**

15–16 November 2021, Madrid, Spain.

### **Hamiltonian Methods and Asymptotic Dynamics.**

7–10 December 2021, Providence, USA.

### **Lie Theory and Poisson Geometry Conference.**

10–14 January 2022, Luminy, France.

### **12th International Conference on Applied Physics and Mathematics.**

18–20 February 2022, Singapore, .

University of Twente, Enschede, Netherlands

**Closing date: 13 September 2021.**

#### **PhD position in applied mathematics.**

Norwegian University of Life Sciences, Ås, Norway

**Closing date: 30 September 2021.**

#### **PhDs in Mathematics.**

University of Luxembourg, Luxembourg

**Closing date: 31 December 2021.**

**PhD in stochastic geometric mechanics.**

Wilfrid Laurier University, Waterloo, Canada

Closing date: [Open until filled.](#)

**PhD positions.**

TU Delft, Delft, The Netherlands

Closing date: [Open until filled.](#)

**Postdoctoral fellowships**

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**Postdoctoral position.**

Institute of Mathematics, Czech Academy of Sciences, Czech Republic

Closing date: [5 September 2021.](#)

**Postdoctoral position in Complex and Symplectic Geometry.**

Universita di Firenze, Florence, Italy

Closing date: [4 October 2021.](#)

**Postdoc Positions.**

University of Bonn, Bonn, Germany

Closing date: [15 October 2021.](#)

**Postdoc position.**

Henri Lebesgue Center, Rennes, France

Closing date: [15 October 2021.](#)

**Postdoctoral Fellowships.**

Mathematical Sciences Research Institute, California, United States

Closing date: [1 December 2021.](#)

**Simons Postdoctoral Fellowships.**

United States

Closing date: [1 December 2021.](#)

**Postdoctoral fellowships in algebraic geometry and mathematical sciences.**

Harvard University, Massachusetts, United States

Closing date: [Open until filled.](#)

**Postdoctoral positions in Mathematics.**

Einstein Institute of Mathematics, Jerusalem, Israel

Closing date: [Open until filled.](#)

**Humboldt research fellowship for postdoctoral researchers.**

Alexander von Humboldt Foundation

Closing date: [Open.](#)

**Lisa Meitner program.**

FWF Austrian Science Fund, Vienna, Austria

Closing date: [Open.](#)

**Funded postdoctoral fellowship.**

University of Reading, United Kingdom

Closing date: [Open.](#)

**Offers for researchers**

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**Lecturer in Applied Mathematics.**

University of Bristol, Bristol, United Kingdom

Closing date: [1 September 2021.](#)

**Faculty positions in Applied Mathematics.**

Universidad Adolfo Ibáñez, Santiago, Chile

Closing date: [15 September 2021.](#)

**Chair in Mathematics.**

University of Bristol, Bristol, United Kingdom

Closing date: [24 September 2021.](#)

**Simons Fellows in Mathematics.**

To make sabbatical research leaves more productive by extending them from a single term to a full academic year

Closing date: [28 September 2021.](#)

**Simons Fellows in Theoretical Physics.**

To make sabbatical research leaves more productive by extending them from a single term to a full academic year

Closing date: [28 September 2021.](#)

**Assistant Professor of Mathematics.**

Texas A&M University at Qatar, Doha, Qatar

Closing date: [29 September 2021.](#)

**Tenure-track Assistant Professor.**

California State University, Fresno, United States

Closing date: [1 May 2022.](#)

**Offers for visiting researchers**

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**Research Professorships at MSRI.**

Mathematical Sciences Research Institute, USA.

Distinguished researchers who can make key contributions to their programs including the mentoring

of postdoctoral fellows.

Closing date: [October, 1st..](#)

**Research Memberships at MSRI.**

Mathematical Sciences Research Institute, USA.

Researchers who will be in residence for at least 30 consecutive days.

**Closing date:** December, 1st..

**SAMSI visiting research fellows.**

Statistical and Applied Mathematical Sciences Institute, USA.

Applications from junior and senior researchers.

**Closing date:** Open.

**Simons Visiting Professors at Mathematisches Forschungsinstitut Oberwolfach.**

Oberwolfach, Germany.

Junior or senior scientists from outside Europe.

**Closing date:** Open.

**Research in pairs at Mathematisches Forschungsinstitut Oberwolfach.**

Oberwolfach, Germany.

Between 2 and 4 people, from 2 weeks to 3 months.

**Closing date:** Six months before planned stay.

**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.

**Financial support for research projects and conferences**

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**Thematic programs at MSRI.**

Mathematical Sciences Research Institute, Berkeley, United States.

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

**Hot topics Workshop at MSRI.**

Mathematical Sciences Research Institute, Berkeley, United States.

**Deadline:** 1 October, 1 December, and 1 March..

**Summer graduate schools at MSRI.**

Mathematical Sciences Research Institute, Berkeley, United States.

**Deadline:** 1 October, 1 December, and 1 March..

**Simons Collaborations in Mathematics and Physical Sciences program.**

Outstanding researchers in a range of career stages.

**Deadline:** 6 October 2021.

**CIMPA Schools call for proposals.**

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

**Centre International de Rencontres Mathématiques (CIRM).**

CIRM, Marseille, France.

2 to 3 researchers for 1 to 2 weeks.

**Closing date:** Open all year.

**Research in pairs program: Centro Internazionale per la Ricerca Matematica.**

Fondazione Bruno Kessler, Trento, Italy.

2-3 people from 1 to 6 weeks.

**Closing date:** Open.

**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 Centre de Recerca Matemàtica.**

CRM, Catalonia, Spain.

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

**Closing date:** Open.

**Visiting research fellow in Kent State University.**

Mathematics Department-KSU, Ohio, USA.

Visiting for scholar researchers.

**Closing date:** Open.

**Deadline:** 10 October, 2021.

**Summer research in mathematics program at MSRI.**

Mathematical Sciences Research Institute, Berkeley, United States.

**Deadline:** December 1st..

**CIMPA Online courses program.**

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

**Deadline:** Open all year.

**Support for workshop organization.**

Banff International Research Station.

**Deadline:** No precise deadline.

**Proposal of a workshop in the Mathematisches Forschungsinstitut Oberwolfach.**

Oberwolfach, Germany.

**Deadline:** Open.

**Mathematical and physical sciences funding.**

National Science Foundation, United States of America.

**Deadline: No precise deadline.**

### Hosting a workshop at AIMS South Africa.

Contributions for workshops about AIMS's research focus areas.

## Preprints

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### Network's members

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Willy Sarlet and Tom Mestdag: *Compatibility aspects of the method of phase synchronization for decoupling linear second-order differential equations.*

2107.14192

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

Romero Solha: *Symplectic foliations induced by harmonic forms on 3-manifolds.*

2108.02012

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

Ángel Ballesteros, Iván Gutiérrez-Sagredo and Francisco J. Herranz: *Noncommutative (A)dS and Minkowski spacetimes from quantum Lorentz subgroups.*

2108.02683

[math-ph, gr-qc, hep-th, math.MP, math.QA]

Víctor M. Jiménez and Manuel de León y Marcelo Espstein: *Characteristic foliations of material evolution: from remodeling to aging.*

2108.02865

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

### Network's collaborators

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Larry Bates, Richard Cushman and Jędrzej Śniatycki: *Vector fields and differential forms on the orbit space of a proper action.*

2108.00280

[math.DG]

S. Sudharsan, A. Venkatesan and M. Senthilvelan: *Constant Bias and Weak Second Periodic Forcing: Tools to Mitigate Extreme Events.*

2108.07696

[math.DS, nlin.CD]

Karl-Hermann Neeb and Francesco G. Russo: *Ground state representations of topological groups.*

2108.00757

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

Beniamino Cappelletti-Montano, Antonio De Nicola and Ivan Yudin: *Integrable LCK manifolds.*

**Deadline: No precise deadline.**

### International Mathematical Union - Conference support program.

For conferences in developing or economically disadvantaged countries.

**Deadline: Several calls.**

Masih Haseli and Jorge Cortés: *Generalizing Dynamic Mode Decomposition: Balancing Accuracy and Expressiveness in Koopman Approximations.*

2108.03712

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

Lyudmila Grigoryeva, Allen Hart and Juan-Pablo Ortega: *Learning strange attractors with reservoir systems.*

2108.05024

[math.DS, cs.LG, cs.NE, cs.SY, eess.SY]

Oğul Esen, Manuel Lainz Valcázar, Manuel de León and Juan Carlos Marrero: *Contact Dynamics versus Legendrian and Lagrangian Submanifolds.*

2108.06519

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

Víctor M. Jiménez and Manuel de León: *The evolution equation: an application of groupoids to material evolution.*

2108.06766

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

2108.00935

[math.DG]

François Gay-Balmaz and Cesare Tronci: *Koopman wavefunctions and classical states in hybrid quantum-classical dynamics.*

2108.01482

[math-ph, math.MP, math.SG, nlin.CD, physics.chem-ph, quant-ph]

David M. Ambrose, Roberto Camassa, Jeremy L. Marzuola, Richard M. McLaughlin, Quentin Robinson and Jon Wilkening: *Numerical Algorithms for Water Waves with Background Flow over Obstacles and Topography.*

2108.01786

[physics.flu-dyn, cs.NA, math-ph, math.AP, math.MP, math.NA]

Jun Jiang, Yunhe Sheng and Chenchang Zhu: *Cohomologies of relative Rota-Baxter operators on Lie groups and Lie algebras.*

2108.02627

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

Rutwig Campoamor-Stursberg and Ian Marquette: *Quadratic algebras as commutants of algebraic Hamiltonians in the enveloping algebra of Schrödinger algebras.*

2108.02329

[math-ph, math.MP]

Damien Calaque, Rune Haugseng and Claudia Scheimbauer: *The AKSZ Construction in Derived Algebraic Geometry as an Extended Topological Field Theory.*

2108.02473

[math.CT, math.AG, math.AT, math.QA, math.SG]

Gregorio Falqui, Igor Mencattini and Marco Pedroni: *Poisson quasi-Nijenhuis deformations of the canonical PN structure.*

2108.02769

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

Simonetta Abenda and Petr G. Grinevich: *A generalization of Talaska formula for edge vectors on planar networks in the disk.*

2108.03229

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

Bas Janssens and Karl-Hermann Neeb: *Positive energy representations of gauge groups I: Localization.*

2108.03501

[math-ph, math.MP, math.OA, math.RT]

Janusz Grabowski, Katarzyna Grabowska and Zohreh Ravanpak: *VB-structures and generalizations.*

2108.06387

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

Andreas Fring and Rebecca Tenney: *Infinite series of time-dependent Dyson maps.*

2108.06793

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

## Links of interest

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**Geometry, Mechanics and Control Network**

**Journal of Geometric Mechanics - June 2021, Volume 13, Issue 2**

**International Mathematical Union (IMU) Newsletter - July 2021**

**Instituto de Ciencias Matemáticas (ICMAT) Newsletter - First semester 2021, Number 21**

**International Association of Mathematical Physics Bulletin - July 2021**

**European Mathematical Society**

**Royal Spanish Mathematical Society (RSME)**

**International Association of Mathematical Physics**

**Open Access American Institute of Mathematical Sciences (AIMS) Journal**

**Euraxess Spain**

**European Research Council**

**European Commission - Research and Innovation**

**International Center of Pure and Applied Mathematics (CIMPA)**

**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 Prizes**

**European Mathematical Society Joint Mathematical Weekend**

**European Mathematical Society Summer Schools in Mathematics**

**The Royal Society Grants**

**The 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)**