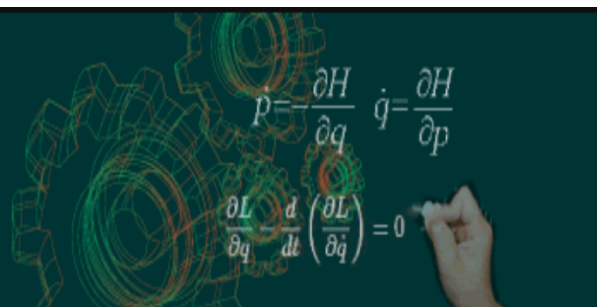




# GMC Network



## *Geometry, Mechanics and Control Network Infosheet*

November 2020

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### Virtual seminars

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

A series of online seminars on these topics.

**Online Seminar on Geometric Mechanics and Control.**

Instituto de Ciencias Matemáticas' seminars on these topics.

**ICMAT Geometry Seminar.**

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

**Colloquium on Geometry and Physics.**

Online colloquium about interface of the two fields.

**One World IAMP Mathematical Physics Seminar.**

Online Seminar of International Association of Mathematical Physics.

**Virtual Seminar on Geometry with Symmetries.**

Virtual research seminar on the topic of "Lie group actions in Riemannian geometry".

**Seminário de Geometria Diferencial.**

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

**Utrecht Geometry Centre Seminar.**

Mathematical Institute, Utrecht University.

**Differential Geometry Seminar Torino.**

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

**Symplectic zoominar.**

Online Seminar organized by University of Torino.

**Geometry and Topology Online.**

Warwick Mathematics Institute.

**Regensburg Low-Dimensional Geometry and Topology Seminar.**

Virtual seminar about interactions between arithmetic geometry and global analysis.

## Conferences

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**Workshop on Integrable Systems.**  
3–4 December 2020, Sydney, Australia.

**Stability in mirror symmetry.**  
7–11 December 2020, San Jose, USA.

**59th Conference on Decision and Control (virtual format).**  
8–11 December 2020, Jeju Island, Korea.

**Online Junior Math Days in Geometry and Mathematical Physics.**  
14–18 December 2020, Trieste, Italy.

**59th Conference on Decision and Control.**  
14–18 December 2020, Jeju Island, Korea.

**Geometry, Dynamics and Spectrum of Operators on Discrete Spaces.**  
3–9 January 2021, Oberwolfach, Germany.

**International Conference on Computational Mathematics and Applied Physics.**  
4–5 January 2021, Tokyo, Japan.

**Topics at the Interface of Low Dimensional Group Actions and Geometric Structures.**  
4–15 January 2021, Singapore.

**Real and complex geometry of Hamiltonian reductions.**  
6–10 January 2021, Luminy, France.

**Challenges and Recent Advances in Mathematical Physics (online).**  
20–22 January 2021, Bristol, United Kingdom.

**Geometry, Analysis, and Quantum Physics of Monopoles.**  
31 January–5 February 2021, Banff, Canada.

**Dynamic Control and Optimization.**  
3–5 February 2021, Aveiro, Portugal.

**Geometry, Topology and their Applications in Control System Design.**  
21–26 February 2021, Banff, Canada.

**Quantum Field Theories and Quantum Topology Beyond Semisimplicity.**  
14–19 March 2021, Banff, Canada.

**Conformal symplectic structures, contact topology, and foliations.**  
15–19 March 2021, San Jose, USA.

**Geometric Numerical Integration.**  
28 March–3 April 2021, Oberwolfach, Germany.

**Digital Geometry and Discrete Variational Calculus.**  
29 March–2 April 2021, Luminy, France.

**GAP XVII - Deformations and higher structures.**  
17–21 May, 2021, Vancouver, Canada.

## Job offers, fellowships and supports

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### Ph.D. offers

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**PhD Positions in Mathematics.**  
BCAM, Bilbao, Spain  
Closing date: 18 December 2020.

**PhD Positions in Mathematics.**  
Aachen University, Aachen, Germany  
Closing date: 31 December 2020.

**Short-Term Research Grants DAAD.**  
Any institution of higher education in Germany  
Closing date: 13 April 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.

**Doctoral candidate (PhD student) in the Systems Control Group.**  
University of Luxembourg, Luxembourg  
Closing date: Open until filled.

**Open PhD Positions in Geometry.**  
Max Planck Institute For Informatics, Saarbrücken, Germany  
Closing date: Open until filled.

**Doctoral candidate in applied algebraic geometry.**  
Aalto University, Espoo, Finland  
Closing date: Open until filled.

## Postdoctoral fellowships

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### Postdoctoral positions at IBS.

IBS Center for Geometry and Physics, Pohang, South Korea

Closing date: 4 December 2020.

### Postdoctoral Research Fellow in Stochastic Simulation.

Ecole Polytechnique, Palaiseau, France

Closing date: 31 December 2020.

### Postdoc Position in Algebraic Geometry.

Humboldt-Universität, Berlin, Germany

Closing date: 5 January 2021.

### Short-Term Research Grants DAAD.

Any institution of higher education in Germany

Closing date: 13 April 2021.

### Postdoctoral positions in geometry.

Heidelberg University, Germany

Closing date: Open until filled.

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

## Offers for researchers

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### Tenure-Track positions in Mathematics.

NYU Shanghai, Shanghai, China

Closing date: 31 December 2020.

### Faculty Positions in Mathematics.

Duke Kunshan University, Kunshan, China

Closing date: Open until filled.

### Research Professor in Mathematics.

Beijing Institute of Mathematical Sciences and Applications, Beijing, China

Closing date: Open until filled.

### Differential geometry expert.

Barcelona, Spain.

Mail to: mcastellano@talentocientifico.com.

Closing date: Open until filled.

### Several Tenure Track positions.

TU Delft, Delft, The Netherlands

Closing date: Open until filled.

## Offers for visiting researchers

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### Research Members at MSRI.

Mathematical Sciences Research Institute, USA.

Mathematicians with Ph.D.s, at least 30 days.

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.

### Research scientist in Mathematics.

Massachusetts Institute of Technology, Massachusetts, United States

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.

### Assistant professor in Mathematics.

Deusto University, Bilbao, Spain

Closing date: Open until filled.

### Mathematics adjunct instructors.

Portland State University, Oregon, United States

Closing date: Open until filled.

### Tenure track position in geometry.

McMaster University, Ontario, Canada

Closing date: Open until filled.

### Tenure track positions in Mathematics.

University of Texas at Dallas, United States

Closing date: Open until filled.

### Assistant professor in Mathematics.

Embry-Riddle Aeronautical University at Prescott, Arizona, United States

Closing date: Open until filled.

Closing date: 1st December, 2020.

### Postdoctoral Fellows at MSRI.

Mathematical Sciences Research Institute, USA.

Ph.D. in mathematics no more than 5 years prior.  
**Closing date: 1st December, 2020.**

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

**Hot Topics Workshop at MSRI.**  
Mathematical Sciences Research Institute, Berkeley, United States.  
**Deadline: December 1st., March 1st. and October 1st.**

**Summer Graduate Schools at MSRI.**  
Mathematical Sciences Research Institute, Berkeley, United States.  
**Deadline: December 1st., March 1st. and October 1st.**

**CIMPA Courses program.**  
Geographic areas of activities of CIMPA (Africa, Central or South America, Asia).  
**Deadline: Open all year.**

**Support for workshop organization.**

**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.**

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.  
**Deadline: No precise deadline.**

**International Mathematical Union - Conference support program.**  
For conferences in developing or economically disadvantaged countries.  
**Deadline: Several calls.**

## Interesting news and publications

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### Preprints

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#### Network's members

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J. Fernando Barbero G., Bogar Díaz, Juan Margalef-Bentabol and Eduardo J. S. Villaseñor: *A concise symplectic formulation for tetrad gravity.*

2011.00661

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

Priyank Srivastava and Jorge Cortés: *Network Optimization via Smooth Exact Penalty Functions Enabled by Distributed Gradient Computation.*

2011.04100

[math.OC, cs.MA]

Manuel de León and Manuel Lainz: *A review on contact Hamiltonian and Lagrangian systems.*

2011.05579

[math-ph, math.MP]

Leonardo Colombo and Dimos V. Dimarogonas: *Symmetry Reduction in Optimal Control of Multi-agent Systems on Lie Groups.*

2011.12234

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

Carlos García-Azpeitia and Luis C. García-Naranjo: *Platonic solids and symmetric solutions of the  $N$ -vortex problem on the sphere.*

2011.12243

[math.DS]

#### Network's collaborators

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Alejandro Cabrera: *Generating functions for local symplectic groupoids and non-perturbative semiclassical quantization.*

2011.02321

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

K. Amakawa and N. Aizawa: *A classification of lowest weight irreducible modules over  $\mathbb{Z}_2^2$ -graded extension of  $osp(1|2)$ .*

2011.03714

[math-ph, math.MP]

Vladimir Dragovic, Borislav Gajic and Bozidar Jovanovic: *Demchenko's nonholonomic case of gyroscopic ball rolling without sliding over a sphere after his 1923 Belgrade doctoral thesis.*

2011.03866

[math.DS, math-ph, math.AG, math.HO, math.MP, nlin.SI]

Oscar García-Prada and Suratno Basu: *Finite group actions on Higgs bundle moduli spaces and twisted equivariant structures.*

2011.04017

[math.AG, math.DG]

Marco Freibert and Andrew Swann: *Two-step solvable SKT shears.*

2011.04331

[math.DG]

Nastassia Duteil and Benedetto Piccoli: *Control of collective dynamics with time-varying weights.*

2011.04387

[math.AP, math.DS, math.OC]

Fabiano Brito, Jackeline Conrado, Adriana Nicoli and Ícaro Gonçalves: *Area minimizing unit vector fields on antipodally punctured unit 2-sphere and minimally immersed Klein Bottles.*

2011.05183

[math.DG]

Vicente Muñoz: *A Smale-Barden manifold admitting  $K$ -contact but not Sasakian structure.*

2011.05783

[math.DG, math.AG, math.SG]

Xiaoming Duan, Dario Paccagnan and Francesco Bullo: *Stochastic Strategies for Robotic Surveillance as Stackelberg Games.*

2011.07604

[math.OC]

Mark Jeeninga, Claudio De Persis and Arjan van der Schaft: *DC power grids with constant-power loads – Part II: nonnegative power demands, conditions for feasibility, and high-voltage solutions.*

2011.09333

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

Manuel Schaller, Friedrich Philipp, Timm Faulwasser, Karl Worthmann and Bernhard Maschke: *Control of port-Hamiltonian systems with minimal energy supply.*

2011.10296

[math.OC, math.DS]

## Links of interest

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Geometry, Mechanics and Control Network

Journal of Geometric Mechanics - September 2020, Volume 12, Issue 3

International Mathematical Union (IMU) Newsletter - November 2020, Net 104

Instituto de Ciencias Matemáticas (ICMAT) Newsletter - Second semester 2020, Number 20

International Association of Mathematical Physics Bulletin - October 2020

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 EMS Joint Mathematical Weekend

European Mathematical Society EMS 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)