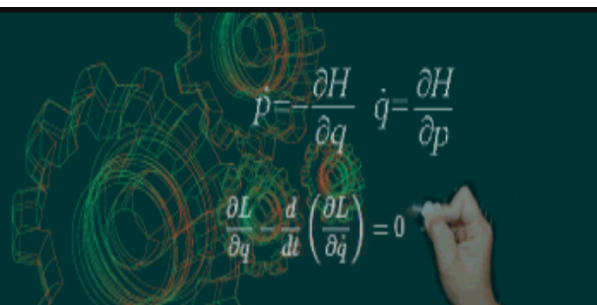




GMC Network



Geometry, Mechanics and Control Network Infosheet

October 2020

Editors: Viviana Díaz, Iván
Gutiérrez, Rodrigo Sato

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Network's activities

15th International Young Researchers Workshop on Geometry, Mechanics, and Control (Online).

30 November–4 December 2020, Utrecht, The Netherlands.

Outstanding event

Online Seminar on Geometry, Dynamics and Mechanics.

A series of online seminars on these topics.

Virtual seminars

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.

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

Control Methods in Hyperbolic Partial Differential Equations.

1–7 November 2020, Oberwolfach, Germany.

Stochastic Geometry and Communications.
2–4 November 2020, Berlin, Germany.

Foliation Theory and Complex Geometry.
23–27 November 2020, Luminy, France.

5th International Conference on Quantum Physics and Mechanics (Webinar).
25–27 November 2020, Edinburg, United Kingdom.

Classical and Quantum Mechanical Models of Many-Particle Systems.
29 November–5 December 2020, Oberwolfach, Germany.

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, Tokio, 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.

Job offers, fellowships and supports

Ph.D. offers

PhD Positions in Numerical Analysis.
Charles University, Prague, Czech Republic
Closing date: 9 November 2020.

PhD in applied mathematics.
TU Munich, Munich, Germany
Closing date: 30 November 2020.

PhD in applied mathematics.
TU Munich, Munich, Germany
Closing date: 30 November 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

Titchmarsh Research Fellowship.

University of Oxford, Oxford, United Kingdom

Closing date: [4 November 2020.](#)

Postdoc Position in Numerical Analysis.

Charles University, Prague, Czech Republic

Closing date: [9 November 2020.](#)

AARMS Postdoctoral Fellowship.

AARMS Member Universities, Canada

Closing date: [15 November 2020.](#)

Postdoc in Topology and Dynamical Systems.

AGH University of Science and Technology, Krakow, Poland

Closing date: [15 November 2020.](#)

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.

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.](#)

Offers for researchers

Assistant Professor of Mathematics.

Austin College, Sherman, Texas

Closing date: [18 November 2020.](#)

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.](#)

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.](#)

Offers for visiting researchers

Research Professorships at MSRI.

Mathematical Sciences Research Institute, USA.
Distinguished researchers including mentoring of postdoctoral fellows, minimum of three months.

Closing date: 1st October, 2020.

Research Members at MSRI.

Mathematical Sciences Research Institute, USA.
Mathematicians with Ph.D.s, at least 30 days.

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.

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.

Financial support for research projects and conferences

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.

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

Journal

Special Issue "New Trends in Hamilton-Jacobi Theory: Conservative and Dissipative Dynamics".

Guest Editor: Manuel de León.

Publisher: MDPI.

Deadline for submissions: 30 November 2020.

https://www.mdpi.com/journal/mathematics/special_issues/New_Trends_Hamilton-Jacobi_Theory_Conservative_Dissipative_Dynamics

Preprints

Network's members

Eva Miranda, Cédric Oms and Daniel Peralta-Salas: *On the singular Weinstein conjecture and the existence of escape orbits for b-Beltrami fields.*

2010.00564 (version 2)

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

Roisin Braddell, Anna Kiesenhofer and Eva Miranda: *b-Structures on Lie groups and Poisson reduction.*

2010.04770

[math.DG, math.SG]

Lyudmila Grigoryeva, Allen Hart and Juan-Pablo Ortega: *Chaos on compact manifolds: Differentiable synchronizations beyond Takens.*

2010.03218 (version 2)

[math.DS]

Alexandre Anahory Simões, Juan Carlos Marrero and David Martín de Diego: *Radial kinetic nonholonomic trajectories are Riemannian geodesics!*

2010.12444

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

Network's collaborators

David Gómez-Ullate, Yves Grandati and Robert Milson: *Complete classification of rational solutions of A_{2n} -Painlevé systems.*

2010.00076

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

Andrey Ardentov, Gil Bor, Enrico Le Donne, Richard Montgomery and Yuri Sachkov: *Bicycle paths, elasticae and sub-Riemannian geometry.*

2010.04201

[math.DG, math.CA, math.MG]

Pedro Cisneros-Velarde, Saber Jafarpour and Francesco Bullo: *Contraction Theory for Dynamical Systems on Hilbert Spaces.*

2010.01219

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

Arjan van der Schaft: *Classical Thermodynamics Revisited: A Systems and Control Perspective.*

2010.04213

[math.OC, math.DS]

Andreas Fring and Rebecca Tenney: *Perturbative approach for strong and weakly coupled time-dependent non-Hermitian quantum systems.*

2010.01595 (version 2)

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

Vincenzo Morinelli and Karl-Hermann Neeb: *Covariant homogeneous nets of standard subspaces.*

2010.07128

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

José Carrasco, Federico Finkel, Artemio González-López and Miguel A. Rodríguez: *The open super-*

symmetric Haldane-Shastry spin chain and its associated motifs.

2010.08307

[math-ph, cond-mat.stat-mech, math.MP, nlin.SI]

Maria Bertozzi, Tara S. Holm, Emily Maw, Dusa McDuff, Grace T. Mwakyoma, Ana Rita Pires and Morgan Weiler: *Infinite staircases for Hirzebruch surfaces.*

2010.08567

[math.SG]

I. Assani, R. S. Hallyburton, S. McMahon, S. Schmidt and C. Schoone: *New Estimates on the bounds of Brunel's operator.*

2010.08681

[math.DS]

Ahmed H. Qureshi, Jiangeng Dong, Asfiya Baig and Michael C. Yip: *Constrained Motion Planning Networks X.*

2010.08707

[cs.RO, cs.AI, cs.LG, math.DG]

Lilian C. Brambila, Pedro Frejlich and David Martínez Torres: *Coregular submanifolds and Poisson submersions.*

2010.09058

[math.SG]

Dirk Kreimer: *Outer Space as a combinatorial backbone for Cutkosky rules and coactions.*

2010.11781

[hep-th, math-ph, math.MP, 81T15]

Anna Cima, Armengol Gasull, Víctor Mañosa and Francesc Mañosas: *Pointwise periodic maps with quantized first integrals.*

2010.12901

[math.DS]

Tô Tat Dat, Protin Frédéric, Nguyen T. T. Hang, Martel Jules, Nguyen Duc Thang, Charles Piffault, Rodríguez Willy, Figueroa Susely, Hông Vân Lê, Wilderich Tuschmann and Nguyen Tien Zung: *Epidemic Dynamics via Wavelet Theory and Machine Learning, with Applications to Covid-19.*

2010.14004

[math.OC, cs.LG]

Giovanni Canepa, Alberto S. Cattaneo and Manuel Tecchioli: *Gravitational Constraints on a Lightlike boundary.*

2010.14871

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

Marcella Palese, Olga Rossi and Fabrizio Zanella: *Geometric integration by parts and Lepage equivalents.*

2010.16135

[math-ph, math.MP]

Charalampos Evripidou, Pavlos Kassotakis and Pol Vanhaecke: *Morphisms and automorphisms of skew-symmetric Lotka-Volterra systems.*

2010.16180

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

Links of interest

Geometry, Mechanics and Control Network

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

International Mathematical Union (IMU) Newsletter - September 2020, Net 103

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

International Association of Mathematical Physics Bulletin - July 2020

European Mathematical Society

Royal Spanish Mathematical Society (RSME)

International Association of Mathematical Physics

Research Webinars Around the World (Several topics)

Latin American Cyber Colloquium on Mathematics

Open Access American Institute of Mathematical Sciences (AIMS) Journal

Euraxess Spain

European Research Council

International Cooperation "Open to the World"

International Center of Pure and Applied Mathematics (CIMPA)

Mathematics in Spain	Association for Women in Mathematics Awards
Open Access Mathematics Journals	
Open Access Physics Journals	IEEE Control Systems Society Awards
Societat Catalana de Matemàtiques (SCM) journal on Mathematics	Royal Society of London Premier Medals and Awards
Mathematics in Europe	London Mathematical Society Prizes
SIAM Activity Group on Control and Systems Theory Prize	The Shaw Prize
SIAM Activity Group on Control and Systems Theory Best SICON Paper Prize	The Henri Poincarè Prize
International Mathematical Union Awards and Prizes	European Mathematical Society Prizes
Other Prizes of International Mathematical Union	Fermat Prize
American Mathematical Society Prizes and Awards	Society for Industrial and Applied Mathematics Prizes
Mathematical Association of America Awards	Noether Lectures Award
	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