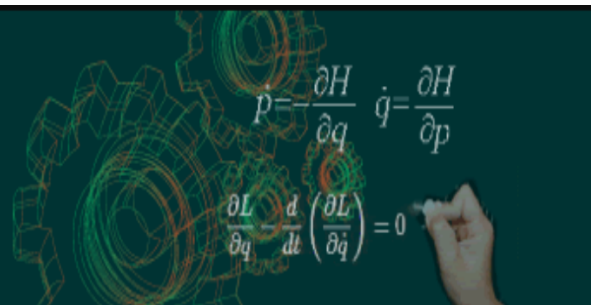




GMC Network



Geometry, Mechanics and Control Network Infosheet

September 2021

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Network's activities

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

1–3 December 2021, Barcelona, Spain.

VII Iberoamerican Meeting on Geometry, Mechanics and Control (Virtual format).

9–11 March 2022, Bahía Blanca, Argentina.

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

Topology Seminar.

About arithmetic geometry and global analysis.

Theory of Duality Seminar.

Department of Mathematical Methods in Physics,
University of Warsaw.

Conferences

Differential geometry, billiards, and geometric optics.

4–8 October 2021, Luminy, France.

Symmetry and shape.

15–18 October 2021, Santiago de Compostela, Spain.

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.

Noncommutative Geometry and Applications.

13–17 December 2021, Sochi, Russia.

Lie Theory and Poisson Geometry Conference.

10–14 January 2022, Luminy, France.

Introductory Workshop on Tame Geometry, Transseries and Applications to Analysis and Geometry.

10–14 January 2022, Toronto, Canada.

12th International Conference on Applied Physics and Mathematics.

18–20 February 2022, Singapore.

Interactions of gauge theory with contact and symplectic topology in dimensions 3 and 4.

6–11 March 2022, Banff, Canada.

Job offers, fellowships and supports

Ph.D. offers

PhD position in several complex variables .

Chalmers University of Technology, Gothenburg, Sweden

Closing date: 31 October 2021.

Doctoral Positions in Mathematics.

University of Münster, Münster, Germany

Closing date: 1 November 2021.

PhD position in computational methods for wave phenomena.

Umeå University, Umeå, Sweden

Closing date: 1 November 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

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.

Postdoc in mathematical methods for marine sustainability.

University of Bergen, Bergen, Norway
Closing date: 31 October 2021.

Postdoctoral Positions in Mathematics.

University of Münster, Münster, Germany
Closing date: 1 November 2021.

Postdoctoral Fellowships.

Mathematical Sciences Research Institute, California, United States
Closing date: 1 December 2021.

Offers for researchers

Lecturer in Mathematics Education.

King's College London, London, UK
Closing date: 24 October 2021.

Research Associate in Pure Mathematics.

University of Bath, Bath, United Kingdom
Closing date: 28 October 2021.

Tenure-track positions in Mathematics.

Institute of Science and Technology Austria, Klosterneuburg, Austria
Closing date: 28 October 2021.

Professor positions in Mathematics.

Institute of Science and Technology Austria, Klosterneuburg, Austria
Closing date: 28 October 2021.

Assistant/Associate/Full Professors in Mathematics.

University of California, Berkeley, USA

Offers for visiting researchers

Research Professorships at MSRI.

Mathematical Sciences Research Institute, USA.
Distinguished researchers who can make key contributions to their programs including the mentoring

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.

Closing date: 31 October 2021.

Senior Researcher Positions.

IBS Center for Geometry and Physics, Pohang, South Korea
Closing date: 29 November 2021.

Assistant Professor in Pure and Applied Mathematics.

Massachusetts Institute of Technology, Massachusetts, USA
Closing date: 1 December 2021.

Assistant Professor in Mathematics.

University of Texas, Austin, USA
Closing date: 1 December 2021.

Tenure-track Assistant Professor.

California State University, Fresno, United States
Closing date: 1 May 2022.

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

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.

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.

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

Deadline: 10 October, 2021.

Summer research in mathematics program at MSRI.

Mathematical Sciences Research Institute, Berkeley, United States.

Deadline: December 1st..

IAMP supported conferences.

International Association of Mathematical Physics.

Deadline: January 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.

Deadline: No precise deadline.

International Mathematical Union - Conference support program.

For conferences in developing or economically disadvantaged countries.

Deadline: Several calls.

Preprints

Network's members

Gianluca Bianchin, Miguel Vaquero, Jorge Cortés and Emiliano Dall'Anese: *Online Stochastic Optimization for Unknown Linear Systems: Data-Driven Synthesis and Controller Analysis.*

2108.13040

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

Jacob R. Goodman and Leonardo J. Colombo: *Variational Obstacle Avoidance with Applications to Interpolation Problems in Hybrid Systems.*

2108.13238

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

R. Caseiro and J. N. da Costa: *\mathcal{O} -operators on Lie ∞ -algebras with respect to Lie ∞ -actions.*

2109.01363

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

José F. Cariñena, Manuel F. Rañada and Mariano Santander: *Superintegrability on the 3-dimensional spaces with curvature. Oscillator-related and Kepler-related systems on the Sphere S^3 and on the Hyperbolic space H^3 .*

2109.03716

[math-ph, math.MP]

José F. Cariñena, Manuel F. Rañada and Mariano Santander: *Superintegrability of 3-dimensional Hamiltonian systems with conformally Euclidean metrics. Oscillator-related and Kepler-related systems.*

2109.04937

[math-ph, math.MP]

Manuel de León, Manuel Laínz, Miguel C. Muñoz-Lecanda and Narciso Román-Roy: *Constrained Lagrangian dissipative contact dynamics.*

2109.05295

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

Priyank Srivastava, Guido Cavraro and Jorge Cortes: *Agent-Supervisor Coordination for Decentralized Event-Triggered Optimization.*

2109.05356

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

Sebastián J. Ferraro, David Martín de Diego and Rodrigo T. Sato Martín de Almagro: *Parallel iterative methods for variational integration applied to navigation problems.*

2109.05559

[math.NA, cs.NA, math.OC]

Florio M. Ciaglia, Fabio Di Cosmo, Alberto Ibort, Giuseppe Marmo, Luca Schiavone and Alessandro Zampini: *Feynman's Propagator in Schwinger's picture of Quantum Mechanics.*

2109.05756

[math-ph, math.MP]

Xavier Gràcia, Xavier Rivas and Narciso Román-Roy: *Skinner-Rusk formalism for k -contact systems.*

2109.07257

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

Ángel Ballesteros, Giulia Gubitosi, Ivan Gutiérrez-Sagredo and Flavio Mercati: *Fuzzy worldlines with κ -Poincaré symmetries.*

2109.09699

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

Manuel de León, Manuel Laínz and Asier López-Gordón: *Geometric Hamilton-Jacobi theory for systems with external forces.*

2109.13802

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

Oğul Esen, Manuel Laínz Valcázar, Manuel de León and Cristina Sardón: *Implicit Contact Dynamics and Hamilton-Jacobi Theory.*

2109.14921

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

Network's collaborators

N. Aizawa and V. K. Dobrev: *Invariant differential operators for the Jacobi algebra \mathcal{G}_2* .

2108.12813

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

Anna Gołębiewska, Ernesto Pérez-Chavela, Sławomir Rybicki and Antonio J. Ureña: *Bifurcation of closed orbits from equilibria of Newtonian systems with Coriolis forces*.

2108.13312

[math.DS, math.CA]

Marco Dalla Via, Francesco Fassò and Nicola Sansonetto: *On the dynamics of a heavy symmetric ball that rolls without sliding on a uniformly rotating surface of revolution*.

2109.00236

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

Oscar Cosserat, Camille Laurent-Gengoux, Alexei Kotov, Leonid Ryvkin and Vladimir Salnikov: *On Dirac structures admitting a variational approach*.

2109.00313

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

Anthony M. Bloch and Steven N. Karp: *Gradient flows, adjoint orbits, and the topology of totally non-negative flag varieties*.

2109.04558

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

Francisco Manuel Castela Simão, Alberto S. Cattaneo and Michele Schiavina: *BV equivalence with boundary*.

2109.05268

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

Henrique Bursztyn, Thiago Drummond and Clarice Netto: *Dirac structures and Nijenhuis operators*.

2109.06330

[math.DG, math.SG]

P. Muruganandam and M. Senthilvelan: *Manifestation of strange nonchaotic attractors in extended systems: A study through out-of-time-ordered correlators*.

2109.07412

[cond-mat.stat-mech, math.DS, nlin.CD]

Kevin D. Smith and Francesco Bullo: *Convex Optimization of the Basic Reproduction Number*.

2109.07643

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

B. M. Shali, A. J. van der Schaft and B. Besselink: *Behavioural assume-guarantee contracts for linear dynamical systems*.

2109.07974

[math.DS]

Javier Fernández, Mariana Juchani and Marcela Zuccalli: *Discrete connections on principal bundles: abelian group case*.

2109.08928

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

Alejandro Bravo-Doddoli and Richard Montgomery: *Globally Minimizing Geodesics in Jet Space*.

2109.13835 (version 2)

[math.OC, math.DG]

S. Doi and N. Aizawa: *Comments of \mathbb{Z}_2 -supersymmetry in superfield formalism*.

2109.14227

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

Links of interest

Geometry, Mechanics and Control Network

Journal of Geometric Mechanics - June 2021, Volume 13, Issue 3

International Mathematical Union (IMU) Newsletter - September 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