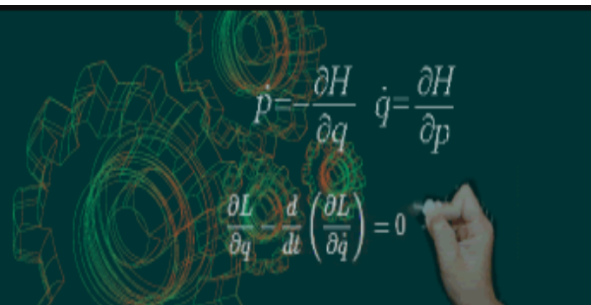




GMC Network



Geometry, Mechanics and Control Network Infosheet

September 2020

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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

Western Hemisphere Colloquium on Geometry and Physics.

Online colloquium about current research on topics in the 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".

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

IV Stability and Control Processes Conference (on line).

5–9 October 2020, Saint Petersburg, Russia.

Mathematical and Computational Approaches for Solving the Source-Free Einstein Field Equations (virtually).

5–9 October 2020, Providence, USA.

Mathematical and Computational Approaches for the Einstein Field Equations with Matter Fields (virtually).

26–30 October 2020, Providence, USA.

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, Edinburgh, 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.

Quantum Groups and Cohomology Theory of Quiver and Flag Varieties.

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.

14–18 December 2020, Luminy, France.

Geometry, Dynamics and Spectrum of Operators on Discrete Spaces.

3–9 January 2021, Oberwolfach, Germany.

International Conference on Computational Mathematics and Applied Physics (IC-CMAP 2021).

4–5 January 2021, Tokio, Japan.

Topics at the Interface of Low Dimensional Group Actions and Geometric Structures.

4–15 January 2021, Singapore.

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.

13–19 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.

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 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

Postdoctoral fellowships

Postdoc Position in Geometry.

Center for Theoretical Physics PAS, Warsaw, Poland

Closing date: 10 October 2020.

Hermann-Weyl-Instructorship.

ETH, Zurich, Switzerland

Closing date: 1 November 2020.

Hooke Research Fellowship.

University of Oxford, Oxford, United Kingdom

Closing date: 2 November 2020.

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.

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.

Offers for researchers

Senior University Lecturer in Algebra.

Lund university, Lund, Sweden

Closing date: 5 October 2020.

Tenure-track Assistant professor.

Umea, Umea University, Sweden

Closing date: 19 October 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.

Closing date: Open until filled.

Doctoral candidate in applied algebraic geometry.

Aalto University, Espoo, Finland

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.

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 In-
stitute, USA.

Applications from junior and senior researchers.

Closing date: Open.

Simons Visiting Professors at Mathematis- ches 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 Mathe- matiques (CIRM).

CIRM, Marseille, France.

2 to 3 researchers for 1 to 2 weeks.

Closing date: Open all year.

Research in pairs program: Centro Inter- nazionale 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 Univer- sity.

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

Hot Topics Workshop at MSRI.

Mathematical Sciences Research Institute, Berkeley,
United States.

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

1st..

Summer Graduate Schools at MSRI.

Mathematical Sciences Research Institute, Berkeley,
United States.

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

IAMP Supported Conferences.

International Association of Mathematical Physics.

Deadline: October 15.

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

Tor Anderson and Sonia Martínez: *Distributed stochastic nested optimization via cubic regularization*.

2008.13291 (version 2)

[math.OC]

S. Hajdú and T. Mestdag: *Jacobi fields and conjugate points for a projective class of sprays*.

2009.00913

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

Stephane Geudens and Marco Zambon: *Deformations of Lagrangian submanifolds in log-symplectic manifolds*.

2009.01146

[math.SG, math.QA]

J. de Lucas and B. M. Zawora: *A time-dependent energy-momentum method*.

2009.08199

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

Miguel Vaquero, Pol Mestres and Jorge Cortés: *Resource-aware discretization of accelerated optimization flows*.

2009.09135

[math.OC]

Manuel de León, Jordi Gaset, Manuel Laínz, Miguel C. Muñoz-Lecanda and Narciso Román-Roy: *Higher-order contact mechanics*.

2009.12160

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

Luis C. García-Naranjo: *Some remarks about the centre of mass of two particles in spaces of constant curvature*.

2009.13455

[math-ph, math.MP]

Network's collaborators

Yi Lin, Yiannis Loizides, Reyer Sjamaar and Yanli Song: *Log symplectic manifolds and $[Q, R] = 0$* .

2008.12728

[math.SG]

Ján Pulmann, Pavol Ševera and Donald R.

Youmans: *Renormalization group flow of Chern-Simons boundary conditions and generalized Ricci tensor.*

2009.00509 (version 2)

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

Tobias Diez, Bas Janssens, Karl-Hermann Neeb and Cornelia Vizman: *Induced differential characters on nonlinear Graßmannians.*

2009.02556

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

Hans Cruz-Prado, Giuseppe Marmo, Dieter Schuch and Octavio Castaños: *Nonlinear description of quantum dynamics. Generalized coherent states.*

2009.03229

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

Li Guo, Honglei Lang and Yunhe Sheng: *Integration and geometrization of Rota-Baxter Lie algebras.*

2009.03492 (version 2)

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

Alexey V. Bolsinov, Andrey Yu. Konyaev and Vladimir S. Matveev: *Applications of Nijenhuis geometry II: maximal pencils of multihamiltonian structures of hydrodynamic type.*

2009.07802

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

Javier Fernandez, Cora Tori and Marcela Zuccalli: *Lagrangian reduction of nonholonomic discrete mechanical systems by stages.*

2009.09582

[math.DG, math.DS]

Philip Arathoon and Marine Fontaine: *Real forms of holomorphic Hamiltonian systems.*

2009.10417

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

Sebastian Fortin, Manuel Gadella, Federico Holik and Marcelo Losada: *Gamow vectors formalism applied to the Loschmidt echo.*

2009.10928

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

Yunhe Sheng, Rong Tang and Chenchang Zhu: *The controlling L_∞ -algebra, cohomology and homotopy of embedding tensors and Lie-Leibniz triples.*

2009.11096

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

David Gomez-Ullate, Yves Grandati and Robert Milson: *Rational solutions of Painleve systems.*

2009.11668

[math-ph, math.MP]

William Clark and Anthony Bloch: *Existence of invariant volumes in nonholonomic systems.*

2009.11387

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

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

Open Access Mathematics Journals

Open Access Physics Journals

**Societat Catalana de Matemàtiques (SCM)
journal on Mathematics**

Mathematics in Europe

**SIAM Activity Group on Control and Sys-
tems Theory Prize**

**SIAM Activity Group on Control and Sys-
tems 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 Poincarè Prize

European Mathematical Society Prizes

Fermat Prize

**Society for Industrial and Applied Mathe-
matics Prizes**

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**