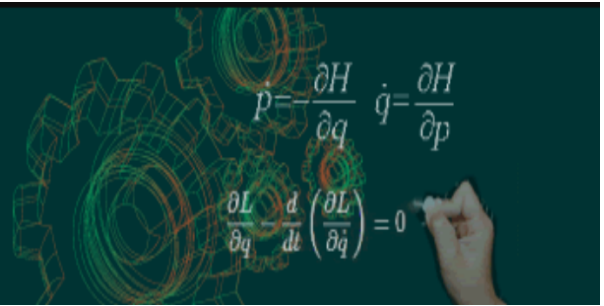




GMC Network



Geometry, Mechanics and Control Network Infosheet

October 2022

Editors: Viviana Díaz, Miguel Berbel, Rodrigo Sato

CONTENTS

Network's activities ...	1
Outstanding event ...	1
Other conferences ...	1
Virtual Seminars ...	2
Job offers, fellowships and supports	
Ph.D. offers ...	2
Postdoctoral offers ...	3
Offers for seniors ...	4
Visiting researchers ...	4
Projects and conferences ...	5
Interesting publication ...	5
Preprints	
Network's members ...	5
Network's Collaborators ...	6
Links of interest ...	6

Network's activities

17th International Young Researchers Workshop on Geometry, Mechanics and Control.
29–31 March 2023, KU Leuven, Belgium.

Outstanding event

Workshop on Nonlinear Systems III.
3–9 January 2023, Istanbul, Turkey.

Other conferences

Discrete Systems and Calculus of Variations.
7–11 November 2022, Munich, Germany.

Computational Differential Geometry and it's Applications in Physics.
14–18 November 2022, New York, USA.

Tenth Workshop on Integrable Systems.
1–2 December 2022, Sydney, Australia.

International Conference on Computational Mechanics.
9–11 December 2022, Guilin, China.

International Conference on Soft Computing, Control and Mathematics.
17–18 December 2022, Dubai, United Arab Emirates.

Statistical Mechanics Conference.
18–20 December 2022, New Jersey, USA.

Lie Groups, Singular Spaces, and Higher Structures.
9–13 January 2023, Toronto, Canada.

Higher Structures, Gravity and Fields.
9–27 January 2023, Berlin, Germany.

Workshop on the Geometry and Dynamics of Groups of Transformations.
16–20 January 2023, Toronto, Canada.

Workshop on the Discrete Geometry, Dynamics and Statistics.

23–27 January 2023, Bangkok, Thailand.

Young Geometric Group Theory XI.

13–17 February 2023, Münster, Germany.

Crossroads of Representation Theory, Geometry and Higher Structures.

13–26 March 2023, Puerto Madryn, Argentina.

8th International Conference on Control and Robotics Engineering.

14–16 April 2023, Niigata, Japan.

Higher Structures in Geometry and Mathematical Physics.

17–21 April 2023, Marseille, France.

Virtual seminars

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

Instituto de Ciencias Matemáticas' seminars on these topics.

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.

Control and Optimization Seminar.

Louisiana State University.

Global Poisson Webinar.

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

Differential Geometry Seminar Torino.

Organised by the Differential Geometry groups of Università di Torino and Politecnico di Torino.

Latin American Seminar on Differential Geometry.

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

Symplectic Zoominar.

Online Seminar organized by CRM-Montréal, Princeton/IAS, Tel Aviv, and Paris.

ICMAT Geometry Seminar.

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

ICTP Virtual Seminars.

Online Seminar organized by International Centre for Theoretical Physics.

Theory of Duality Seminar.

Department of Mathematical Methods in Physics, University of Warsaw.

Geometry and Topology Online.

Warwick Mathematics Institute.

Job offers, fellowships and supports

Ph.D. offers

3 PhD positions in Geometry, Probability, and Deep Learning.

University of Padova, Padova, Italy

Closing date: November 2022.

PhD stipends in Mathematics.

University of Copenhagen, Copenhagen, Denmark

Closing date: 15 November 2022.

PhD position in Mathematical Models in Biology.

University of Surrey, Guildford, United Kingdom

Closing date: 25 November 2022 .

PhD in Geometric, Stochastic and Numerical Analysis.

University of Bielefeld, Bielefeld, Germany

Closing date: 4 December 2022.

PhD positions in Quantum Mathematics.

University of Southern Denmark, Odense, Denmark

Closing date: 15 December 2022.

Graduate scholarship in Mathematics.

Nanyang Technological University, Nanyang, Singapore

Closing date: 30 December 2022.

PhD positions in Dynamics, Control and Numerics.

FAU Erlangen-Nurnberg, Erlangen, Germany

Closing date: 30 December 2022.

Doctoral candidates in Statistics and Probability.

Esch sur Alzette, Luxembourg, Luxembourg

Closing date: 31 December 2022.

Postdoctoral fellowships

IST-BRIDGE: International Postdoctoral Program.

Institute of Science and Technology Austria, Klosterneuburg, Austria

Closing date: 5 November 2022.

Postdoctoral positions Maria de Maeztu.

CRM, Barcelona, Spain

Closing date: 15 November 2022.

Postdoctoral Fellowships positions in Mathematical Sciences.

Paris Region, France

Closing date: 30 November 2022.

Postdoctoral position in Calculus of Variations.

Technical University of Munich, Munich, Germany

Closing date: 30 November 2022.

PostDoc positions in Geometry and Physics.

IBS Center for Geometry and Physics, Pohang, Korea

Closing date: 30 November 2022.

Bernoulli Instructorships in Mathematics.

Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland

Closing date: 30 November 2022.

Postdoctoral Research Positions.

Max Planck Institute for Mathematics in the Sciences, Leipzig, Germany

Closing date: 1 December 2022.

Postdoctoral Fellowships.

Simons Laufer Mathematical Sciences Institute, Berkeley (CA), United States

PhD position in Applied Mathematics.

Safran Tech, Paris, France

Closing date: 31 December 2022.

PhD position in Computational Mechanics.

Universidad Politécnica de Madrid, Madrid, Spain

Closing date: Open until filled.

PhD positions.

TU Delft, Delft, The Netherlands

Closing date: Open until filled.

Closing date: 1 December 2022.

Postdoc in Geometric Analysis and Differential Geometry.

KTH Royal Institute of Technology, Stockholm, Sweden

Closing date: 9 December 2022.

Postdoctoral positions in Quantum Mathematics.

University of Southern Denmark, Odense, Denmark

Closing date: 15 December 2022.

Postdoctoral position in Mathematics.

Nanyang Technological University, Nanyang, Singapore

Closing date: 30 December 2022.

Postdoctoral positions in Dynamics, Control and Numerics.

FAU Erlangen-Nurnberg, Erlangen, Germany

Closing date: 30 December 2022.

Postdoctoral Fellow in Applied Algebra and Geometry.

Harvard University, Cambridge (MA), United States

Closing date: 15 January 2023.

Postdoctoral fellowships in algebraic geometry and mathematical sciences.

Harvard University, Massachusetts, United States

Closing date: Open until filled.

Humboldt research fellowship for postdoctoral researchers.

Alexander von Humboldt Foundation

Closing date: Open.

Offers for researchers

Full Professor in Geometry/Topology.
Université Paul Sabatier, Toulouse, France
Closing date: 8 November 2022.

3 Lecturer positions in Mathematics, Statistics and Operations Research.
Aalto University, Espoo, Finland
Closing date: 29 November 2022.

Assistant/Associate Professor of Mathematical Physics.
Radboud University, Nimega, Netherlands
Closing date: 30 November 2022.

Faculty positions in Mathematics.
EPFL - Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland
Closing date: 30 November 2022.

Tenure-Track positions in Mathematics.

Offers for visiting researchers

Abel Visiting Scholar Program.
International Mathematical Union.
Postdoctoral mathematician to visit a research collaborator for a month.
Closing date: 31 December, 30 April and 31 August.

Simons Visiting Professors at Mathematisches Forschungsinstitut Oberwolfach.
Oberwolfach, Germany.
Junior or senior scientists from outside Europe.
Closing date: Open.

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.

New York University Abu Dhabi, United Arab Emirates
Closing date: 1 December 2022.

Open-Rank Tenure-Track position in Differential Geometry.
Clark University, Worcester (MA), United States
Closing date: 15 December 2022.

Tenure-track faculty positions.
National Taiwan University, Taipei, Taiwan
Closing date: 31 December 2022.

Assistant Professor in Mathematical Physics.
University of California San Diego, La Jolla (CA), United States
Closing date: Open until filled.

Permanent position in Applied Statistics.
BCAM, Bilbao, Spain
Closing date: Open until filled.

International Research in Groups at CIRM.
Centre International de Rencontres Mathématiques (CIRM), France.
Small groups of researchers for 2 to 4 weeks.
Closing date: Open at any time.

Research in Residence at CIRM.
Centre International de Rencontres Mathématiques (CIRM), France.
2 to 4 researchers.
Closing date: Open at any time.

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 CRM.
Centre de Recerca Matemàtica, Catalonia, Spain.
Postdoctoral positions and research in pairs.
Closing date: Any time between 6 and 12 months before the start of the desired stay.

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: 1 December, 1 March, and 1 October every year. Three years ahead.

Hot topics Workshop at MSRI.

Mathematical Sciences Research Institute, Berkeley, United States.

Deadline: 1 December, 1 March, and 1 October every year.

Summer graduate schools at MSRI.

Mathematical Sciences Research Institute, Berkeley, United States.

Deadline: 1 December, 1 March, and 1 October every year.

Workshop at CIRM.

Centre International de Rencontres Mathématiques, France.

Deadline: Open at any time.

CIMPA Online courses program.

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

Deadline: Open all year.

Support for workshop organization at Banff.

Banff International Research Station.

Deadline: No precise deadline.

Proposal of a workshop in the Mathematisches Forschungsinstitut Oberwolfach.

Oberwolfach, Germany.

Deadline: Open.

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 publications

Volume: *13th Young Researchers Workshop on Geometry, Mechanics and Control. Mathematical Texts of the University of Coimbra.*

Number 48, 2019.

Three mini-courses.

Online, free access.

Editors: Maria Barbero-Liñán, Margarida Camarinha, Raquel Caseiro, Leonardo Colombo, and Joana Nunes da Costa.

Special Issue "*Symmetry in Geometric Mechanics and Mathematical Physics*". **A special issue of Symmetry.**

Section "Physics and Symmetry/Asymmetry".

MDPI Open Access Journals.

Editors: Manuel de León and Narciso Román-Roy.

Deadline for manuscript submissions: 15 February 2023.

Preprints

Network's members

Kehan Long, Yin Zhuang Yi, Jorge Cortés and Nikolay Atanasov: *Safe and Stable Control Synthesis for Uncertain System Models via Distributionally Robust Optimization.*

2210.01341

[math.OC, cs.RO]

Joaquim Gomis, Arnaldo Guerra IV and Narciso Román-Roy: *Multisymplectic Constraint Analysis of Scalar Field Theories, Chern-Simons Gravity, and Bosonic String Theory.*

2210.07698

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

Xavier Rivas: *Nonautonomous k -contact field theories.*

2210.09166

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

Miguel Á. Berbel and Marco Castrillón López: *Poisson-Poincaré reduction for Field Theories.*

2210.14732

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

Network's collaborators

Francesco Bonechi, Alberto S. Cattaneo and Maxim Zabzine: *Towards equivariant Yang-Mills theory*.
2210.00372

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

François Gay-Balmaz and Cesare Tronci: *Dynamics of mixed quantum-classical spin systems*.

2210.00988

[quant-ph, cond-mat.mes-hall, math-ph, math.MP, math.SG]

Karl-Hermann Neeb and Gestur Olafsson: *Algebraic Quantum Field Theory and Causal Symmetric Spaces*.

2210.01299

[math-ph, math.MP]

Paolo Aniello, Stefano Mancini and Vincenzo Parisi: *Trace class operators and tracial states in p -adic quantum mechanics*.

2210.01566

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

Miguel A. Rodríguez and Piergiulio Tempesta: *On higher-dimensional superintegrable systems: A new family of classical and quantum Hamiltonian models*.

2210.02208

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

Elena Celledoni, Davide Murari, Brynjulf Owren, Carola-Bibiane Schönlieb and Ferdia Sherry: *Dynamical systems' based neural networks*.

2210.02373

[cs.LG, cs.NA, math.DS, math.NA]

Raphael Chetrite and Frédéric Patras: *Algebraic structures underlying quantum independences: Theory and Applications*.

2210.09264

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

Vladimir Dragović, Borislav Gajić and Božidar Jovanović: *Spherical and Planar Ball Bearings – a Study of Integrable Cases*.

2210.11586

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

Yacine Chitour, Sébastien Fueyo, Guilherme Mazanti and Mario Sigalotti: *Hautus–Yamamoto criteria for approximate and exact controllability of linear difference delay equations*.

2210.13590

[math.OC]

Links of interest

Geometry, Mechanics and Control Network

Journal of Geometric Mechanics - Current Issue

International Mathematical Union (IMU) Newsletter - September 2022

International Association of Mathematical Physics Bulletin - July 2022

European Mathematical Society

Royal Spanish Mathematical Society (RSME)

International Association of Mathematical Physics

Open Access American Institute of Mathematical Sciences (AIMS) Journal

Euraxess Spain

International Centre for Theoretical Physics (ICTP)

European Research Council

European Commission - Research and Innovation

International Center of Pure and Applied Mathematics (CIMPA)

Mathematical and physical sciences funding, National Science Foundation, USA

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 Funding and Sponsorship

The British Royal Society Grants

The British Royal Society's medals and award

NOTE: If you want to include information in this info-sheet, please send it to gmccactivities@gmail.com