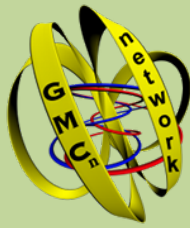


GMC Network Infosheet

September 2019



Geometry, Mechanics and
Control Network
Infosheet

September 2019

Editors: Viviana Díaz, Iván
Gutiérrez, Rodrigo Sato

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Network's activities

14th International Young Researchers Workshop on Geometry, Mechanics and Control.

16–18 December 2019, Göttingen, Germany.

<https://www.uni-goettingen.de/en/607463.html>

Other conferences

Dirac operators in differential geometry and global analysis.

6–12 October 2019, Bedlewo, Poland.

<http://http://wmii.uwm.edu.pl/dirac/>

Colombian Conference on Automatic Control.

15–18 October 2019, Medellín, Colombia.

<http://www.ieecccac2019.com/>

Dynamics, Geometry and Combinatorics.

21–25 October 2019, Lausanne, Switzerland.

<https://bernoulli.epfl.ch/events/1489>

Modern Problems of Mathematics and Mechanics.

23–25 October 2019, Baku, Azerbaijan.

<https://imm60.imm.az/>

International Congress Geometric Analysis at UCA.

28–31 October 2019, Cádiz, Spain.

<http://iemath.ugr.es/dc2019/#event>

Algebraic and Geometrical Methods in String Theory.

28 October–8 November 2019, San Martín, Argentina.

<http://icas.unsam.edu.ar/hub/cimpa2019/>

Dirac operators on domains with magnetic fields.

28 October–8 November 2019, Luminy, France.

<https://conferences.cirm-math.fr/2240.html>

Workshop on Contact and Poisson Geometry.

31 October–2 November 2019, Timisoara, Romania.

<https://sites.google.com/view/wcpg>

Differential Geometry and Nonassociative Algebras.

12–15 November 2019, Luminy, France.

<https://conferences.cirm-math.fr/2076.html>

Workshop on Higher Structures in Geometry and Physics.

18–22 November 2019, Montreal, Canada.

<https://tinyurl.com/y6rvpcpb>

IX Conference on Quantum Foundations.
27–29 November 2019, Córdoba, Argentina.
<https://sites.google.com/view/ixjfc>

Symplectic Geometry with Algebraic Techniques with applications to Mathematical Physics.
10–13 December 2019, Madrid, Spain.
<https://tinyurl.com/y6krqm9>

Supergeometry, supersymmetry and quantization.
16–19 December 2019, Luxembourg.
<http://math.uni.lu/SuperWork/SuperConference.html>

Geometry from the Quantum.
13–17 January 2020, Santa Barbara, USA.
<https://www.kitp.ucsb.edu/activities/qgravity-c20>

9th International Conference on Quantum Simulation and Quantum Walks.
20–24 January 2020, Marseille, France.
<https://conferences.cirm-math.fr/2161.html>

Symplectic Geometry, Contact Geometry and Interactions.
6–8 February 2020, Antwerpen, Belgium.
<https://tinyurl.com/y67nzdke>

Job offers, fellowships and supports

Ph.D. offers

12 PhD Positions in Climate Forecasting.
Centre de Recerca Matemàtica, Barcelona, Spain
Closing date: 8 October 2019.
<https://www.mathjobs.org/jobs/jobs/13814>

PhD positions in Mathematics.
Berlin Mathematical School, Berlin, Germany
Closing date: 1 December 2019.
https://euro-math-soc.eu/system/files/job-announcements/BMS_PhD_Call_2019.pdf

PhD in Numerical Linear Algebra.
Charles University, Praha, Czech Republic
Closing date: 1 December 2019.
<https://www.karlin.mff.cuni.cz/~carson/primus-jobs.html>

PhD student position.
University of Munster, Munster, Germany
Closing date: 31 December 2019.
<https://euro-math-soc.eu/job/phd-student-positionsalary-scale-13-tv-1-75-1>

PhD position in Geometry.
University of Fribourg, Fribourg, Switzerland
Closing date: 31 December 2019.
<https://euro-math-soc.eu/job/phd-position-geometry-3>

Doctoral Researcher in optimal transport.
Department of Mathematics, Technische Universität München
Closing date: 31 December 2019.

https://euro-math-soc.eu/system/files/job-announcements/Schmitzer_Doc.pdf

PhD positions in mathematics.
University of Luxembourg, Luxembourg
Closing date: 1 March 2020.
<http://recruitment.uni.lu/en/details.html?nPostingId=25556&nPostingTargetId=41799>

PhD positions.
TU Delft, Delft, The Netherlands
Closing date: Open until filled.
<https://tinyurl.com/yyzhqhf>

Doctoral candidate (PhD student) in the Systems Control Group.
University of Luxembourg, Luxembourg
Closing date: Open until filled.
<https://tinyurl.com/y6731flx>

Open PhD Positions in Geometry.
Max Planck Institute For Informatics, Saarbrücken, Germany
Closing date: Open until filled.
<http://euro-math-soc.eu/job/open-phd-position-0>

Doctoral candidate in applied algebraic geometry.
Aalto University, Espoo, Finland
Closing date: Open until filled.
<https://tinyurl.com/y298aqpp>

Postdoctoral fellowships

Post-doc position in Complex and Symplectic Geometry.

University of Florence, Florence, Italy

Closing date: 9 October 2019.

<https://tinyurl.com/y3h5j6ro>

Postdoctoral position in mathematics.

University of Iceland, Reykjavik, Iceland

Closing date: 15 October 2019.

<https://euro-math-soc.eu/job/postdoctoral-position-mathematics-university-iceland>

Postdoc position in optimal control of PDEs.

University of Graz, Graz, Austria

Closing date: 15 January 2020.

<https://mathematik.uni-graz.at/index.php?id=39381>

Postdoctoral positions in geometry.

Heidelberg University, Germany

Closing date: Open until filled.

<https://www.mathjobs.org/jobs/jobs/12713>

Postdoctoral fellowships in algebraic geometry and mathematical sciences.

Harvard University, Massachusetts, United States

Closing date: Open until filled.

<http://cmsa.fas.harvard.edu/jobs/>

Postdoctoral positions in Mathematics.

Einstein Institute of Mathematics, Jerusalem, Israel

Closing date: Open until filled.

<https://mathematics.huji.ac.il/book/faculty-positions-0>

Research scientist in Mathematics.

Massachusetts Institute of Technology, Massachusetts, United States

Closing date: Open until filled.

<https://simonscollab.icerm.brown.edu/open-positions/>

Humboldt research fellowship for postdoctoral researchers.

Alexander von Humboldt Foundation

Closing date: Open.

<https://www.humboldt-foundation.de/web/humboldt-fellowship-postdoc.html>

Lisa Meitner program.

FWF Austrian Science Fund, Vienna, Austria

Closing date: Open.

<https://www.fwf.ac.at/en/research-funding/application/>

Funded postdoctoral fellowship.

University of Reading, United Kingdom

Closing date: Open.

<https://www.reading.ac.uk/maths-and-stats/JobsAndFellowships/maths-fellowships.aspx>

Offers for researchers

Tenure Track position in Mathematical Quantum Physics.

Korteweg-de Vries Institute for Mathematics, Amsterdam, Netherlands

Closing date: 15 October 2019.

<https://tinyurl.com/y5rmwk4n>

Professor positions in pure and applied mathematics.

IST Austria, Klosterneuburg, Austria

Closing date: 31 October 2019.

<https://ist.ac.at/en/jobs/faculty/>

Faculty Position in Mathematics.

EPFL, Lausanne, Switzerland

Closing date: 1 November 2019.

<https://facultyrecruiting.epfl.ch/auth/Apply/0/Position/18186242/Step/1>

Lecturer in Computational Mathematics.

University of Melbourne, Melbourne, Australia

Closing date: 8 November 2019.

<http://jobs.unimelb.edu.au/caw/en/job/900384/lecturer-in-applied-mathematics-computational>

Several Tenure Track positions.

TU Delft, Delft, The Netherlands

Closing date: Open until filled.

<https://www.tudelft.nl/en/3me/departments/delft-center-for-systems-and-control/about-dcsc/vacancies/>

Assistant professor in Mathematics.

Deusto University, Bilbao, Spain

Closing date: Open until filled.

<https://deusto.talentclue.com/es/node/38171378/4590/modal>

Mathematics adjunct instructors.

Portland State University, Oregon, United States

Closing date: Open until filled.

<https://jobs.hrc.pdx.edu/postings/26062>

Tenure track position in geometry.

McMaster University, Ontario, Canada

Closing date: Open until filled.

<https://www.mathjobs.org/jobs/jobs/12720>

Tenure track positions in Mathematics.

University of Texas at Dallas, United States

Closing date: Open until filled.

<https://jobs.utdallas.edu/postings/11339>

Assistant professor in Mathematics.

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

Closing date: Open until filled.

<https://www.mathjobs.org/jobs/jobs/13189>

Offers for visiting researchers

Simon's fellows in Mathematics and Physical Sciences.

Simon's Foundation, New York, USA.

Grants to institutes and researchers.

Closing date: 25 September to 3 October 2019 depending the grant.

<https://www.simonsfoundation.org/funding-opportunities>

SAMSI visiting research fellows.

Statistical and Applied Mathematical Sciences Institute, USA.

Applications from junior and senior researchers.

Closing date: Open.

<https://www.samsi.info/participating/visiting-research-fellows/>

Research in pairs in the Mathematisches Forschungsinstitut Oberwolfach.

Oberwolfach, Germany.

Between 2 and 4 people, from 2 weeks to 3 months.

Closing date: Six months before planned stay.

<http://www.mfo.de/for-guest-researchers/apply-for-a-stay/apply-for-research-in-pairs>

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.

<http://www.birs.ca/programs/general-program-descriptions>

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.

<http://www.birs.ca/programs/general-program-descriptions>

Centre International de Rencontres Mathématiques (CIRM).

CIRM, Marseille, France.

2 to 3 researchers for 1 to 2 weeks.

Closing date: Open all year.

<https://tinyurl.com/y5vnhxj6>

Visiting the ICMAT.

Instituto de Ciencias Matemáticas, Madrid, Spain.

Researchers for a period 1 to 12 months.

Closing date: 2 months before the start of the desired stay.

<http://www.icmat.es/people/visitFac>

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.

<http://cirm.fbk.eu/research-pairs>

Visiting scholar opportunity in Cambridge.

University of Cambridge, United Kingdom.

Scholars and fellows for development of research, teaching and collaboration.

Closing date: Open.

<https://www.educ.cam.ac.uk/about/visiting-scholars/>

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.

<http://www.crm.cat/en/Host/VisitingCRM/Pages/ResearchPairs.aspx>

Visiting research fellow in Kent State University.

Mathematics Department-KSU, Ohio, USA.

Visiting for scholar researchers.

Closing date: Open.

<http://www.kent.edu/globaleducation/visiting-scholars>

Financial support for research projects and conferences

Thematic Programs at MSRI.

Mathematical Sciences Research Institute, Berkeley, United States.

Deadline: October 15, December 1st and March 1st. Three years ahead.

<http://tinyurl.com/msri-progprop>

Hot Topics Workshop at MSRI.

Mathematical Sciences Research Institute, Berkeley, United States.

Deadline: October 15, December 1st and March 1st.

<http://tinyurl.com/msri-htw>

Summer Graduate Schools at MSRI.

Mathematical Sciences Research Institute, Berkeley, United States.

Deadline: October 15, December 1st and March 1st.

<http://tinyurl.com/msri-sgs>

Support for workshop organization.

Banff International Research Station.

Deadline: No precise deadline.

<http://www.birs.ca/programs/general-program-descriptions>

Propose a workshop in the Mathematisches Forschungsinstitut Oberwolfach.

Oberwolfach, Germany.

Deadline: Open.

<https://www.mfo.de/scientific-programme/meetings/workshop>

Mathematical and physical sciences funding.

National Science Foundation, United States of America.

Deadline: No precise deadline.

https://www.nsf.gov/funding/pgm_list.jsp?org=MPS

Hosting a workshop at AIMS South Africa.

Contributions for workshops about AIMS's research focus areas.

Deadline: No precise deadline.

<https://tinyurl.com/y8p3t34j>

International Mathematical Union-Conference support program.

For conferences in developing or economically disadvantaged countries.

Deadline: Several calls.

<https://tinyurl.com/yycetfcz>

Preprints and papers

Network's members

Ángel Ballesteros, Iván Gutiérrez-Sagredo and Flavio Mercati: *Coreductive Lie bialgebras and dual homogeneous spaces.*

1909.01000

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

Masih Haseli and Jorge Cortés: *Efficient Identification of Linear Evolutions in Nonlinear Vector Fields: Koopman Invariant Subspaces.*

1909.01419

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

Joseph Palmer, Álvaro Pelayo and Xiudi Tang: *Semitoric systems of non-simple type.*

1909.03501

[math.SG, math.DS]

S. Hajdú and T. Mestdag: *Conjugate points for systems of second-order ordinary differential equations.*

1909.05012

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

M. Fernández, A. Restuccia and A. Sotomayor: *On the Hamiltonian formulation of an octonionic integrable extension for the Korteweg-de Vries equation.*

1909.05544

[math-ph, math.MP]

Florio M. Ciaglia, Alberto Ibort and Giuseppe Marmo: *Schwinger's Picture of Quantum Mechanics III: The statistical interpretation.*

1909.07265

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

Alberto Enciso, Alejandro Luque and Daniel Peralta-Salas: *Beltrami fields with hyperbolic periodic orbits enclosed by knotted invariant tori.*

1909.07448

[math.DS, math.AP]

Manuel de León and Manuel Lainz Valcázar: *Infinitesimal symmetries in Contact Hamiltonian systems.*

1909.07892

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

Leonardo Colombo, Hector García de Marina, María Barbero Liñán and David Martín de Diego: *On the observability of relative positions in left-invariant multi-agent control systems and its application to formation control.*

1909.08914

Network's collaborators

Nolan King and Tomoki Ohsawa: *Hamiltonian Dynamics of Semiclassical Gaussian Wave Packets in Electromagnetic Potentials.*

1908.11454

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

Diego Alonso-Orán, Aythami Bethencourt de León, Darryl Holm and So Takao: *Modelling the climate and weather of a 2D Lagrangian-averaged Euler-Boussinesq equation with transport noise.*

1909.00388

[math-ph, math.MP]

R. R. Cuzinatto, M. de Montigny and P. J. Pompeia: *Non-commutativity and non-inertial effects on the Dirac oscillator in a cosmic string space-time.*

1909.00904

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

Catherine Meusburger and Carlos Scarinci: *Light-like and ideal tetrahedra.*

1909.00932 (version 2)

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

Francesco Boarotto, Yacine Chitour and Mario Sigalotti: *Fuller singularities for generic control-affine systems with an even number of controls.*

1909.01061

[math.OC]

Thierry Daudé, Niky Kamran and François Nicoleau: *The anisotropic Calderón problem on 3-dimensional conformally Stäckel manifolds.*

1909.01669

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

Nicolas Augier, Ugo Boscain and Mario Sigalotti: *On the compatibility between the adiabatic and the rotating wave approximations in quantum control.*

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

Dimitris Boskos, Jorge Cortés and Sonia Martínez: *Data-driven ambiguity sets with probabilistic guarantees for dynamic processes.*

1909.11194

[math.OC]

Sergio Grillo and Edith Padrón: *Extended Hamilton-Jacobi theory, contact manifolds and integrability by quadratures.*

1909.11393

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

1909.02226

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

Nicolas Augier, Ugo Boscain and Mario Sigalotti: *Semi-conical eigenvalue intersections and the ensemble controllability problem for quantum systems.*

1909.02271

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

David Martínez Torres and Carlos Tomei: *An atlas adapted to the Toda flow.*

1909.02676

[math.DG]

Meera Mainkar and Benjamin Schmidt: *Preserve one, preserve all.*

1909.05276

[math.DG]

Ján Pulmann, Pavol Ševera and Fridrich Valach: *A non-abelian duality for (higher) gauge theories.*

1909.06151

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

Wenjun Mei, Francesco Bullo, Ge Chen and Florian Dörfler: *Occam's Razor in Opinion Dynamics: The Weighted-Median Influence Process.*

1909.06474 (version 2)

[cs.SI, cs.SY, eess.SY, math.DS]

David J. Fernandez C. and Barnana Roy: *Confluent Second-Order Supersymmetric Quantum Mechanics and Spectral Design.*

1909.06632

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

D. Demir Kızıllırmak, Ş. Kuru and J. Negro: *Dirac-Weyl equation on a hyperbolic graphene surface under perpendicular magnetic fields.*

1909.06831

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

Arjan van der Schaft and Bernhard Maschke: *Dirac and Lagrange algebraic constraints in non-linear port-Hamiltonian systems*.
1909.07025
[math.OC]

Anindya Ghose-Choudhury and Partha Guha: *Reduction and Hamiltonian aspects of a model for virus-tumour interaction in oncolytic virotherapy*.
1909.08421
[q-bio.PE, math-ph, math.MP, nlin.SI]

David L. Johnson: *Kähler manifolds with orthogonal coordinates*.
1909.08033
[math.DG]

A. Fannjiang and Z. Zhang: *Fixed Point Analysis of Douglas-Rachford Splitting for Ptychography and Phase Retrieval*.
1909.08600
[math.NA, cs.NA, math.OC, physics.data-an]

M. Gadella, J. M. Mateos Guilarte, J. M. Muñoz-Castañeda, L. M. Nieto and L. Santamaría-Sanz: *Band spectra of periodic hybrid δ - δ' structures*.
1909.08603 (version 2)
[math-ph, cond-mat.other, math.MP]

Kiril Solovey, Lucas Janson, Edward Schmerling, Emilio Frazzoli and Marco Pavone: *Revisiting the Asymptotic Optimality of RRT**.
1909.09688
[cs.RO, math.OC]

Tudor S. Ratiu and Nguyen Tien Zung: *Integrable systems in planar robotics*.
1909.09707
[math.DS]

Santiago Capriotti: *Routh reduction of Palatini gravity in vacuum*.
1909.10088
[math-ph, math.MP]

William Clark and Anthony Bloch: *The Bouncing Penny and Nonholonomic Impacts*.
1909.11192
[math.DS]

Tobias Diez and Tudor S. Ratiu: *Realizing the Teichmüller space as a symplectic quotient*.
1909.11551
[math.DG, math.SG]

Rui Yan, Xiaoming Duan, Zongying Shi, Yisheng Zhong and Francesco Bullo: *Maximum-Matching Capture Strategies for 3D Heterogeneous Multi-player Reach-Avoid Games*.
1909.11881
[math.OC]

Links of interest

The Geometry, Mechanics and Control Network.
International, spanish based research network.
<http://gmcnet.webs.u11.es/>

Journal of Geometric Mechanics (JGM).
Volume 11, Issue 3, 2019.
<https://aimsciences.org/journal/1941-4889/2019/11/3>

International Mathematical Union-Net 97.
September 2019.
<https://www.mathunion.org/fileadmin/IMU/Organization/imu-net/pdfs/2019/IMU-Net-97.pdf>

ICMAT Newsletter.
18th number. First semester 2019.
<https://www.icmat.es/outreach/newsletter/nu18>

New AIMS Journal.
New open access journal.
<http://www.aimspress.com/journal/Math>

Euraxess Spain.
Researchers in motion.
<https://www.euraxess.es/spain/science-spain>

European Research Council.
Supporting top researchers from anywhere
<https://erc.europa.eu/>

International Cooperation “Open to the World”.
Research and Innovation, European Commission
<https://tinyurl.com/y46tkeeq>

International Center of Pure and Applied Mathematics (CIMPA).
<https://www.cimpa.info/>

Reports@SCM journal.

<http://revistes.iec.cat/index.php/reports/>

Mathematics in Europe.

<http://www.mathematics-in-europe.eu/>

Jobs for Mathematicians.

<https://www.mathjobs.org/jobs>

Academic positions in Spain, France and Belgium.

Mathematics and Physics related areas.

<http://postes.smai.emath.fr/postdoc/>

Academic jobs in Mathematics in Europe.

<http://academicpositions.eu/>

Academic jobs in Mathematics in the UK.

<http://www.jobs.ac.uk/categories/postdoc-jobs>

Academic jobs in Mathematics worldwide.

<https://www.postdocjobs.com/>

Academic jobs in Mathematics in Spain.

<http://www.madrimasd.org/madrid-ciencia-tecnologia/convocatorias>

Academic jobs in Mathematics.

<http://www.indeed.com/q-Postdoctoral-jobs.html>

SIAM Activity Group on Control and Systems Theory Prize.

<https://tinyurl.com/ydcpzrv7>

SIAM Activity Group on Control and Systems Theory Best SICON Paper Prize.

<https://tinyurl.com/ycjpvz6>

International Mathematical Union Awards and Prizes.

<https://www.mathunion.org/imu-awards/imu-awards-prizes-and-special-lecture>

Other Prizes of International Mathematical Union.

<https://www.mathunion.org/imu-awards/other-prizes>

American Mathematical Society Prizes and Awards.

<https://www.ams.org/profession/prizes-awards/prizes>

Mathematical Association of America Awards.

<https://www.maa.org/programs-and-communities/member-communities/maa-awards/writing-awards>

Association for Women in Mathematics Awards.

<https://awm-math.org/awards/>

Royal Society of London Premier Medals and Awards.

<https://royalsociety.org/grants-schemes-awards/awards/premier-awards/>

London Mathematical Society Prizes.

<https://www.lms.ac.uk/prizes>

The Shaw Prize.

<http://www.shawprize.org/en/shaw.php?tmp=2&twoid=77>

European Mathematical Society Prizes.

<http://euro-math-soc.eu/prizes-european-mathematical-society>

Fermat Prize.

<https://www.math.univ-toulouse.fr/spip.php?rubrique107&lang=en>

Society for Industrial and Applied Mathematics Prizes.

<https://www.siam.org/prizes/>

Noether Lectures Award.

<https://sites.google.com/site/awmmath/programs/noether-lectures>

The Royal Society Grants.

<https://royalsociety.org/grants/>

The Royal Society's medals and award.

<https://royalsociety.org/grants-schemes-awards/awards/nominations/>

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