

GMC Network Infosheet

October 2018



Geometry, Mechanics and
Control Network
Infosheet

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Network's activities

**XIII International Young Researchers Workshop on
Geometry, Mechanics and Control.**

6–8 December 2018, Coimbra, Portugal.

<http://www.uc.pt/en/congressos/13yrw>

**Special Session “Poisson Geometry and Mathematical
Physics” at II Joint Meeting of Mathematical Societies
RSME-SEMA-SBM-SBMAC.**

11–14 December 2018, Cádiz, Spain.

<http://spabrazmathcadiz18.uca.es/web/Congreso/?lang=en&page=s/s/06>

**Special Session “Estructuras geométricas aplicadas a
mecánica clásica, teoría de control e ingeniería” at Con-
greso Bienal de la Real Sociedad Matemática Española.**

4–8 February 2019, Santander, Spain.

<http://2019.bienalrsme.com/sesiones-especiales>

Other Conferences

**Workshop on dynamical systems, calculus of variations
and control.**

8–9 November 2018, Firenze, Italy.

<http://wp.maths.usyd.edu.au/igs/workshops/integrable-systems-2018/>

**Hamiltonian systems, from topology to applications
through analysis II.**

26–30 November 2018, Berkeley, California, USA.

<http://www.msri.org/workshops/872>

**The 6th Symposium on Prospects in the Physics of Dis-
crete Symmetries.**

26–30 November 2018, Vienna, Austria.

<https://www.discrete2018.at/>

Workshop on Integrable Systems.

29–30 November 2018, Sydney, Australia.

<http://events.dimai.unifi.it/DSCVC2018/>

Workshop on Manifolds.

3–7 December 2018, Cambridge, UK.

<http://www.newton.ac.uk/event/hhhw04>

The 2018 Australian and New Zealand Control Conference.

6–8 December 2018, Melbourne, Australia.
<https://anzcc.org.au/ANZCC2018/index.php>

Optimal Control and Differential Games.

12–14 December 2018, Moscow, Russia.
<http://www.mathnet.ru/eng/conf1287>

Variational Problems in Geometry and Mathematical Physics.

7–10 January 2019, Leeds, United Kingdom.
<http://www1.maths.leeds.ac.uk/~pmtgk/ukjapan2019/home.html>

The 57th IEEE Conference on Decision and Control.

9–10 January 2019, New Delhi, India.
<http://icc.org.in/2019/>

Variational problems in Geometry and Mathematical Physics, Winter School.

7–10 January 2019, Leeds, United Kingdom.
<http://www1.maths.leeds.ac.uk/~pmtgk/ukjapan2019/home.html>

3rd Bangkok workshop on Discrete Geometry Dynamics and Statistics.

21–25 January 2019, Bangkok, Thailand.
<http://www.thaihep.phys.sc.chula.ac.th/BKK2019DSCR/>

Groups and Geometry.

21–25 January 2019, Marseille, France.
<https://conferences.cirm-math.fr/1920.html>

Workshop on Differential Geometry in the Large.

04–15 February 2019, Victoria, Australia.
<https://www.matrix-inst.org.au/events/australian-german-workshop-on-differential-geometry-in-the-large/>

Job offers, fellowships and supports

Ph.D. offers

PhD studentship in dynamics.

University of Exeter, United Kingdom
Closing date: 30 November 2018.
<http://www.exeter.ac.uk/studying/funding/award/?id=3301>

PhD positions in pure Mathematics.

KU Leuven, Belgium
Closing date: 2 December 2018.
<https://wis.kuleuven.be/methusalem-pure-math/jobs/phd-positions>

PhD studentship in Mathematics.

University of Warwick, United Kingdom
Closing date: 5 December 2018.
<https://www.jobs.ac.uk/job/BM0616>

PhD studentship in partial differential equations.

University of Sussex, United Kingdom
Closing date: 6 December 2018.
<https://www.jobs.ac.uk/job/BMP334/>

PhD position in control theory.

University of Surrey, United Kingdom
Closing date: 10 December 2018.

<https://www.surrey.ac.uk/postgraduate/computer-science-phd>

Doctoral candidate (PhD student) in the Systems Control Group.

University of Luxembourg, Luxembourg
Closing date: Open until filled.
<https://academicpositions.es/ad/university-of-luxembourg/2018/doctoral-candidate-phd-student-in-the-systems-control-group-m-f/116152>

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>

PhD position in noncommutative differential geometry.

Swansea University, United Kingdom
Closing date: Open until filled.
<https://www.findaphd.com/search/ProjectDetails.aspx?PJID=97585>

Postdoctoral fellowships

Postdoctoral contract in Dynamic Control (DyCON).

Universidad Autónoma de Madrid, Spain

Closing date: 15 November 2018.

http://www.uam.es/ss/Satellite?cid=1446769733613&pageName=UniversidadAutonomaMadrid%2FUAM_BecaInvestig_FA%2FUAM_becaInvestig&pid=1242648515360

Postdoctoral position in complex algebraic geometry.

Technische Universität Berlin, Germany

Closing date: 30 November 2018.

https://www.math.tu-berlin.de/fachgebiete_ag_diskalg/fachgebiet_algorithmische_algebra/v_menu/open_positions/postdoc_ii_55618

Postdoctoral positions in geometry and its applications.

Project CCEM and project Fanfare.

Henry Lebesgue Center, France.

Closing date: 30 November 2018.

<https://www.lebesgue.fr/content/post-doc>

Postdoctoral positions in Mathematics.

IAS School of Mathematics, Princeton, United States

Closing date: 1 December 2018.

<https://www.math.ias.edu/administration/applications>

Postdoctoral associate in Mathematics.

Boston University, Massachusetts, United States

Closing date: 1 December 2018.

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

Postdoctoral positions in pure Mathematics.

KU Leuven, Belgium

Closing date: 2 December 2018.

<https://wis.kuleuven.be/methusalem-pure-math/jobs/postdoc-positions>

“Sonata” postdoctoral positions.

Research centres in Poland

Closing date: 17 December 2018.

<http://www.ncn.gov.pl/finansowanie-nauki/konkursy/typy/3?language=en>

Postdoctoral fellowships in Mathematics.

Ben-Gurion University of the Negev, Israel

Closing date: End of December.

<https://www.math.bgu.ac.il/en/people/positions>

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

Lecturer in Mathematical Physics.

University of Melbourne, Australia

Closing date: 7 November 2018.

<http://jobs.unimelb.edu.au/caw/en/job/897238/lecturer-in-mathematical-physics>

Tenure-track position in Mathematics.

Duke University, North Carolina, United States

Closing date: 9 November 2018.

<https://www.mathjobs.org/jobs/jobs/12536>

Lecturer in Mathematics.

Lancaster University, United Kingdom

Closing date: 18 November 2018.

<https://hr-jobs.lancs.ac.uk/Vacancy.aspx?ref=A2459>

Professor in Mathematics (geometry).

University of Luxembourg, Luxembourg

Closing date: 30 November 2018.

<http://recruitment.uni.lu/en/details.html?nPostingTargetID=23999>

Assistant professor in Analysis, Dynamics and Geometry.

Durham University, United Kingdom

Closing date: 14 December 2018.

<https://www.dur.ac.uk/jobs/recruitment/vacancies/math19-52/>

Tenure position in Geometry.

Dartmouth University, New Hampshire, United States

Closing date: 25 December 2018.

<https://www.math.dartmouth.edu//activities/recruiting/>

Professor of Mathematics.

University of Bath, United Kingdom

Closing date: 7 January 2019.

<https://www.bath.ac.uk/jobs/Vacancy.aspx?ref=CC6245>

Mathematics adjunct instructors.

Portland State University, Oregon, United States

Closing date: Open until filled.

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

Assistant professor in Mathematics.

Institute for Computational and Experimental Research in Mathematics.

Brown University, Rhode Island, United States.

Closing date: Open until filled.

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

Assistant professor of Mathematics.

Cabrini University

Closing date: Open until filled.

<https://jobs.cabrini.edu/postings/1272>

Offers for visiting researchers**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: A minimum of 4 months before the proposed start of 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: A minimum of 4 months before the proposed start of 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. CIRM subsidizes board and lodging for people not based in the region.

Closing date: Open all year.

<https://www.cirm-math.com/research-in-pairs.html>

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 for working on a project 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/visitingscholars/>

Small team visiting the CRM.
Centre de Recerca Matemàtica, 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: December 1st, March 1st and October 15. Three years ahead.
<http://tinyurl.com/msri-progprop>

Hot Topics Workshop at MSRI.
Mathematical Sciences Research Institute, Berkeley, United States.
Deadline: December 1st, March 15 and October 15.
<http://tinyurl.com/msri-htw>

Summer Graduate Schools at MSRI.
Mathematical Sciences Research Institute, Berkeley, United States.
Deadline: December 1st, March 15 and October 15.
<http://tinyurl.com/msri-sgs>

Innovative Training Networks (Horizon 2020).
European Commission, Brussels, Belgium.
Deadline: 15 February 2019.
<https://tinyurl.com/ya5vpaj7>

Research and Innovation Staff Exchange (Horizon 2020).
European Commission, Brussels, Belgium.
Deadline: 2nd April 2019.
<https://tinyurl.com/ybdcrlr>

Support for training in research (CIMPA).
Centre International de Mathématiques Pures et Appliquées, France.
Deadline: 3 July 201x for projects in period September 201x-February 201(x+1).

https://www.cimpa.info/en/support_for_training_in_research/call_for_applications

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.
Deadline: No precise deadline.
https://www.nsf.gov/funding/pgm_list.jsp?org=MPS

Hosting a workshop at AIMS South Africa.
Contributions to the cost of workshops which falls within one of AIMS's research focus areas.
Deadline: No precise deadline.
<https://www.aims.ac.za/en/research-centre/workshops-conferences/hosting-a-workshop-at-aims>

International Mathematical Union-Conference support program.
Partial support for conferences organized in developing or economically disadvantaged countries.
Deadline: Several calls.
<http://www.mathunion.org/cdc/grants/conference-support-program/>

Preprints and papers

Network's members

Sergio D. Grillo, Leandro M. Salomone and Marcela Zuccalli: *Explicit solutions of the kinetic and potential matching conditions of the energy shaping method.*

1810.00620

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

Janusz Grabowski and Javier de Lucas: *Remarks on superdifferential equations.*

1810.03174

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

Florian Schaetz and Marco Zambon: *Gauge equivalences for foliations and pre-symplectic structures.*

1810.04555

[math.DG, math.SG]

Oğul Esen, Manuel de León, Víctor Manuel Jiménez Morales and Cristina Sardón: *Reduction of a Hamilton-Jacobi equation for nonholonomic systems.*

1810.04962 (version 2)

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

Jacob Goodman and Leonardo Colombo: *On the Existence and Uniqueness of Poincaré Maps for Systems with Impulse Effects.*

1810.05426

[cs.SY, math.DG, math.DS, math.OC]

Juan Carlos Marrero and Edith Padrón: *On symplectic lifts of actions for complete Lagrangian fibrations.*

1810.05656

[math.SG, math.DG]

Alberto Enciso, Daniel Peralta-Salas and Francisco Torres de Lizaur: *High-energy eigenfunctions of the Laplacian on the torus and the sphere with nodal sets of complicated topology.*

1810.09277

[math.AP, math.DG, math.SP]

Rodrigo T. Sato Martín de Almagro: *Convergence of Lobatto-type Runge-Kutta methods for partitioned differential-algebraic systems of index 2.*

1810.10298

[math.NA, math.DS]

David Martín de Diego and Rodrigo T. Sato Martín de Almagro: *High-order geometric methods for nonholonomic mechanical systems.*

1810.10926

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

Dan Li, Dariush Fooladivanda and Sonia Martínez: *Data-driven Variable Speed Limit Design for Highways via Distributionally Robust Optimization.*

1810.11385

[math.OC, math.DS, math.PR]

Network's collaborators

Yan Cui, Camille Laurent and Zhiqiang Wang: *On the Observability Inequality of Coupled Wave Equations: the Case without Boundary.*

1810.00512

[math.OC]

Beniamino Cappelletti-Montano and Andrea Loi: *Sasakian immersions into the sphere.*

1810.00772 (version 2)

[math.DG]

Yael Karshon and Susan Tolman: *Topology of complexity one quotients.*

1810.01026

[math.SG, math.AT]

Jéfferson L. R. Bastos, Claudio A. Buzzi, Jaume Llibre and Douglas D. Novaes: *Melnikov analysis*

in nonsmooth differential systems with nonlinear switching manifold.

1810.02993

[math.DS]

Eduardo Fernández, Javier Martínez-Aguinaga and Francisco Presas: *Loops of Legendrians in contact 3-manifolds.*

1810.03194

[math.SG]

Tomoki Ohsawa: *Dual Pairs and Regularization of Kummer Shapes in Resonances.*

1810.07721

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

Bart Besselink, Karl H. Johansson and Arjan van der Schaft: *Contracts as specifications for dynamical systems in driving variable form.*

1810.05542

[cs.SY, math.OC]

Marius-F. Danca, Paul Bourke and Miguel Romera: *Graphical exploration of the connectivity sets of alternated Julia sets; M , the set of disconnected alternated Julia sets.*

1810.06982

[math.DS, nlin.CD]

Yi Lin: *Kirwan Surjectivity for the Equivariant Dolbeault cohomology.*

1810.06140

[math.SG, math.DG]

Marisa Fernández, Anna Fino and Alberto Raffero: *On G_2 -structures, special metrics and related flows.*

1810.07587

[math.DG]

Pavol Ševera and Fridrich Valach: *Courant algebroids, Poisson-Lie T-duality, and type II supergravities.*

1810.07763 (version 2)

[math.DG, hep-th]

Links of interest

The GMC network.

International, spanish based network focused on Geometry, Mechanics and Control.

<http://gmcnet.webs.u11.es/>

Journal of Geometric Mechanics (JGM).

Volume 10, Issue 3, 2018.

<http://aimsciences.org/journal/1941-4889/2018/10/3>

IMU-Net 91.

August 2018.

<https://www.mathunion.org/fileadmin/IMU/Organization/imu-net/pdfs/2018/IMU-Net-91.pdf>

ICMAT Newsletter.

17th number. Second semester 2018.

<https://www.icmat.es/outreach/newsletter/num17>

New AIMS Journal.

New open access journal.

<http://www.aimspress.com/journal/Math>

International Center of Pure and Applied Mathematics (CIMPA).

<https://www.cimpa.info/>

Spanish math journals.

http://www.rsme.es/component/option,com_weblinks/catid,51/Itemid,23/

Reports@SCM journal.

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

Mathematics in Europe.

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

Online textbooks: MIT Open courseware.

<https://ocw.mit.edu/courses/online-textbooks/>

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.

PhD, post doc positions, research assistant, etc.

<http://academicpositions.eu/>

Academic jobs in Mathematics in the UK.

PhD, post doc positions, research assistant, etc.

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

Academic jobs in Mathematics worldwide.

PhD, post doc positions, research assistant, etc.

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

Academic jobs in Mathematics in Spain.

PhD, post doc positions, research assistant, vacant jobs, lectureships.

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

Academic jobs in Mathematics.

PhD, post doc positions, research assistant, vacant jobs, lectureships.

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

SIAM Activity Group on Control and Systems Theory Prize.

<https://www.siam.org/Prizes-Recognition/Activity-Group-Prizes/Detail/SIAG-Control-and-Systems-Theory-Prize>

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

<https://www.siam.org/Prizes-Recognition/Activity-Group-Prizes/Detail/SIAG-CST-Best-SICON-Paper-Prize>

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>

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