

Geometry, Mechanics and Control Network Infosheet

October 2014

Editors: Javier de Lucas, Pedro Daniel Prieto and Silvia Vilariño

CONTENTS

Network's activities
9th IYRGMC

XVII Winter Meeting on GMC

Job offers, fellowships and awards

Ph.D. Offers ...1

Postdoctoral offers ... 2

Offers for senior researchers ... 3

Visiting researchers ... 3

Awards $\dots 5$

Financial support for research projects and conferences ... 5

Interesting news and publications

Network's members 6 and collaborators 7 preprints and papers

Other conferences

GMC Network Infosheet

October 2014

Network's activities

9th International Young Researchers Workshop on Geometry, Mechanics and Control.

University of Zaragoza, January 19–21, 2015.

Speakers:

- R. Ghezzi (University of Burgundy, Dijon, France). "Geometry and Analysis on Almost-Riemannian Manifolds".
- T. Mestdag (Ghent University, Belgium). "The inverse problem of the calculus of variations".
- D. Martínez Torres (PUC-Rio, Brazil).

Deadline: Poster/Short Talks: December 1, 2014. Registration: January 4, 2015.

http://gmcnet.webs.ull.es/?q=activity-detaill/1284

XVII Winter Meeting on Geometry, Mechanics and Control Theroy.

University of Zaragoza, January 22–23, 2015.

Job offers, fellowships and awards

Ph.D. offers

Ph.D. in Berlin.

Berlin Mathematical School.

Berlin, Germany.

Closing date: December 1, 2014.

http://www.euro-math-soc.eu/job/berlin-mathematical-school-bms-\$%\$E2\$%\$80\$%\$93-get-your-math-phd-berlin

Ph.D. Opportunities in Mathematics of Planet Earth.

EPSRC Centre for Doctoral Training.

Imperial College London.

Closing date: December 10, 2014.

http://www.jobs.ac.uk/job/AJ0506/

Ph.D. Research Project: Particle scale dynamics using variational framework.

Department of Engineering.

University of Newcastle, Australia.

Closing date: December 31, 2014.

http://www.findaphd.com/search/ProjectDetails.aspx?PJID=45473&LID=2479

Ph.D in Applied Mathematics.

Department of Mathematical Sciences. Carnegie Mellon University, Pittsburgh, USA.

Closing date: January 15, 2015.

http://www.euro-math-soc.eu/job/phd-applied-mathematics-carnegie-mellon-university

Chancellor's Doctoral Fellowship.

Department of Mathematics. University of Kansas, USA. Closing date: January 31, 2015.

http://www.euro-math-soc.eu/job/chancellors-doctoral-fellowship

Postdoctoral fellowships

ICMAT Postdoc 2014.

Instituto de Ciencias Matemáticas.

Madrid, Spain.

Closing date: October 31, 2014.

http://www.icmat.es/severo-ochoa/HumanResources/ICMat_Postdoc2014

Postdoctoral Positions.

Hausdorff Center for Mathematics.

Universität Bonn.

Closing date: November 1, 2014.

http://www.hcm.uni-bonn.de/opportunities/post

docs/

Junior Research Fellowships 2015.

Joint Application Scheme.

United Kingdom.

Closing date: November 16, 2014.

https://www.chu.cam.ac.uk/about/master-fellows/junior-research-fellowships/jrfapplications/

Research Associate / Fellow (2 posts).

School of Mathematical Sciences.

University of Nottingham.

Closing date: November 17, 2014.

http://www.jobs.ac.uk/job/AJU854/

Postdoctoral Positions in Mathematics.

Department of Mathematics.

ETH Zürich.

Closing date: November 17, 2014.

http://www.math.ethz.ch/jobs/pd

Chapman Fellowships in Mathematics.

Department of Mathematics.

Imperial College London.

Closing date: November 27, 2014.

http://www.jobs.ac.uk/job/AJV208/

Research Assistant in Applied Mathemat-

ics.

School of Mathematics.

University of Bristol.

Closing date: December 1, 2014. http://www.jobs.ac.uk/job/AJ0221/

Postdoctoral Position in Philosophy of Mathematical-Physics.

The European Research Council (ERC) project Philosophy of Canonical Quantum Gravity.

Laboratoire SPHERE (UMR 7219), Centre National de la Recherche Scientifique (CNRS), Université Paris Diderot, Paris, France..

Closing date: December 31, 2014.

http://www.euro-math-soc.eu/job/postdoctoral-position-in\$%\$C2\$%\$AOphilosophy\$%\$C2\$%\$AO-mathematical-physics

Research Fellow (75287-104).

University of Warwick.

Coventry, England.

Closing date: January 5, 2015.

http://www.jobs.ac.uk/job/AJU806/

Postdoctoral research associate.

Department of Mathematics.

University of York.

Closing date: January 6, 2015.

http://www.jobs.ac.uk/job/AJV336/

Postdoctoral Research Assistant / Associate in Dynamical Systems (ChaParDyn).

School of Mathematics.

University of Bristol.

Closing date: January 7, 2015.

http://www.jobs.ac.uk/job/AJP976/

Hildebrandt/Assistant Professor.

Department of Mathematics.

University of Michigan, Ann Arbor.

Closing date: January 31, 2015.

https://www.mathjobs.org/jobs/jobs/6167

Faculty Positions in Mathematics.

School of Basic Sciences.

EPFL.

Closing date: November 1, 2014.

http://professeurs.epfl.ch/page-111651-fr.htm

1

Lecturer in Applied Mathematics.

Department of Mathematics.

University College London, London, UK.

Closing date: November 4, 2014. http://www.jobs.ac.uk/job/AJQ568/

Full Professor (W3) for Geometry.

Department of Mathematics.

Faculty of Science, University of Tübingen, Ger-

many.

Closing date: November 14, 2014. http://www.jobs.ac.uk/job/AJS126/

Lecturer / Senior Lecturer / Reader in Pure Mathematics.

Shool of Mathematics and Statistics.

University of Glasgow.

Closing date: November 16, 2014. http://www.jobs.ac.uk/job/AJU930/

Tenure Position as Assistant Professor.

Department of Mathematics.

San José State University.

Closing date: December 1, 2014.

http://www.sjsu.edu/math/employment/tenure-

position/index.html

Assistant/Associate Professor.

Skidmore College.

Saratoga Springs, New York.

Closing date: December 1, 2014.

http://sciences.academickeys.com/seeker_job_d isplay.php?dothis=display&job[IDX]=58738&q=

Lecturer/Senior Lectureships in Pure Mathematics.

 $\label{eq:Department} \mbox{ Department of Mathematics.}$

Imperial College Longon.

Closing date: December 12, 2014. http://www.jobs.ac.uk/job/AJT936/

Assistant Professor, and higher, Mathematics.

Faculty of Mathematics.

National Research University Higher School of

Economics (HSE), Moscow. Closing date: December 20, 2014.

http://www.jobs.ac.uk/job/AJQ061/

Assistant Professor Mathematics.

Clarkson University.

Potsdam, New York.

Closing date: Open until filled.

http://sciences.academickeys.com/seeker_job_d isplay.php?dothis=display&job[IDX]=60018&q=

Assistant Professor.

Columbia University.

New York.

Closing date: Open until filled.

http://sciences.academickeys.com/seeker_job_d isplay.php?dothis=display&job[IDX]=59150&q=

Offers for visiting researchers

Abel Visiting Scholar Program.

The Niels Henrik Abel Board.

The International Mathematical Union.

The Niels Henrik Abel Board and the International Mathematical Union invite applications from mathematicians professionally based in developing countries to visit an international research collaborator for a period of one month. The period is extendable for up to three months in the case of matching support from the host institution. The program is designed for post doctoral mathematicians in the early stages of their professional careers. It is designed to offer the opportunity for a research sabbatical, a necessary complement to teaching and other academic du-

ties for mathematicians desiring to also sustain a viable research program.

Closing date:

- December 31, 2014 for research visits starting April 1st 2015 and later.
- April 1st, 2015 for research visits starting August 1st 2015 and later.
- August 31, 2015 for research visits between January 1 and April 30, 2016.

http://www.mathunion.org/cdc/grants/abel-visiting-scholar-program/

Call for Visiting Professors at CIRM.

Fondazione Bruno Kessler.

Trento University, Trento, Italy.

CIRM Visiting Scholars will perform mathematical research in cooperation with scientists and researchers of Trento University or, more generally, of the Trento area, holding some research seminars. CIRM Visiting Professors will hold short Ph.D. courses, or 'Summer Courses', or series of seminars. It is foreseen that the selection process for Visiting Professors-Scholars take place through either individual application, or Invitation by a professor of Trento University or by a member of the Advisory Board.

Closing date: Applications may be sent at any time

http://cirm.fbk.eu/cirm-visiting-professors

Visiting the ICMAT.

ICMAT.

Madrid, Spain.

The ICMAT offers the possibility of hosting researchers wishing to stay at the institute for a period normally ranging from one to twelve months, preferably having a research plan and a scientific connection with ICMAT researchers. Visitors will be provided with office space and working facilities at the institute, as well as house-finding assistance if necessary. No financial support will be provided for these visits. Applications can be submitted at any time generally two months before the start of the desired stay. An answer will be given no later that one month after submission of the applications.

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 University, Trento, Italy.

This type of program is similar to the one of the Mathematisches Forschungsinstitut Oberwolfach, and foresees the presence of two or three partners from Universities located in different towns, who intend to work on a definite research project and for a well specified period of time (ranging from one to six weeks). Applicant partners must submit a scientific project in the field of mathematics, with a detailed research program, resulting in one or more scientific publications on journals of excellent mathematical level; the support of the CIRM will then be acknowledged in the resulting publications. Participants in the RIP Program

will also give occasional research seminar talks at the CIRM or at the University of Trento, but will enjoy freedom in the pursuit of their scientific goals. Applications where one or more of the partners are Italians will of course be welcome.

Closing date: Applications may be sent at any time.

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

Visiting the CRM.

Centre de Recerca Matemàtica.

Catalonia, Spain.

The CRM offers the possibility of hosting researchers wishing to stay at the Centre for a period normally ranging from one to six months, preferably having a research plan and a scientific connection with long-term CRM visitors or researchers based at a university in Catalonia. Researchers from Catalan universities can apply if they are free from teaching duties during the period of their stay at the CRM. Visitors will be provided with office space and working facilities at the Centre, as well as house-finding assistance if necessary. Support for housing expenses can be requested, although the CRM can only assign an overall small amount of support to visits outside its Research Programmes. Visits should be carried out during the academic year (from September to July). A resolution will be given by the CRM no later than three months after submission of the application.

Closing date: Applications can be submitted at any time between 6 and 12 months before the start of the desired stay.

http://www.crm.cat/en/VisitingTheCRM/Pages/GuidelinesvisitingCRM.aspx

Research in Pairs in Barcelona.

Centre de Recerca Matemàtica.

Catalonia, Spain.

Application are welcome for stays at the CRM aiming to carry out collaborative research work of a small team of people, consisting of: a principal investigator, staying at the CRM for a quarter or a semester. One or two collaborators, staying at the CRM for at least one month. Researchers from Catalan universities can apply as principal investigators if they are free from teaching duties during the period of their stay at the CRM. Office space and working facilities will be provided by the CRM, as well as house-finding assistance if necessary. Support for housing expenses can be requested, and priority will be given to applications with a self-funded principal investigator. Visits should be carried out during the academic

year (from September to July).

Closing date: Applications can be submitted at any time generally between 6 and 12 months before the start of the desired stay.

http://www.crm.cat/en/VisitingTheCRM/Pages/COLLABORATION-RESEARCH-STAYS.aspx

Visiting the IMUS.

IMUS.

University of Sevilla, Spain.

IMUS offers the possibility of hosting researchers wishing to stay at the Institute for a period ranging from one to twelve months. Priority will be given to those researchers having a research plan, with likely a training proposal in their fields, to be developed in collaboration with IMUS members. Visitors will be provided with office space and working facilities at the Institute, as well as

house-finding assistance if necessary. No financial support will be provided for these visits(*). Nevertheless, IMUS could help to apply for external financial sources, especially for those researchers who are in a sabbatical period from their home institution.

Applications can be submitted at any time by filling out this form. For short periods (around 2 months), it will be enough to submit the application 2 months before the initial date of the desired stay. For longer periods, we recommend to submit the application 1 year before the starting date.

An answer will be given within one month of the submission of the application.

Closing date: Applications can be submitted at any time.

http://www.imus.us.es/es/contenido/intercall

Awards

2015 Ferran Sunyer i Balguer Prize.

Prize: 15000 euros Closing date: December 2, 2014.

http://ffsb.espais.iec.cat/files/2014/06/cart ell_FFSB_2015_LR2.pdf

Barcelona Dynamical Systems Prize 2015.

Prize: 4000 euros Closing date: May 30, 2015.

http://blogs.iec.cat/scm/premis/barcelona-dy namical-systems-prize/

Financial support for research projects and conferences

New call Horizon 2020: Innovative Training Networks ITN.

The Innovative Training Networks is an action under the Horizon 2020 activity, Marie Sklodowska-Curie actions.

Deadline: January 13, 2015.

http://www.euro-math-soc.eu/news/14/09/4/new-call-horizon-2020-innovative-training-networks-itn

Call for proposals for scientific activities in 2015.

The EMS Meetings Committee calls for nominations or proposals of speakers and scientific events in 2015. The Executive Committee of the EMS, via its Meetings Committee, is willing to provide support that may cover the cost of the EMS Lecturers and of Distinguished Speakers, and to give partial support to the organization of EMS Weekends. Since resources are scarce, only a limited number of events can be supported. Deadline: Depends on the category.

http://www.euro-math-soc.eu/news/13/01/10/call-proposals-scientific-activities-2015

EMS. Call for porposals for scientific activities in 2015.

The EMS Meetings Committee calls for nominations or proposals of speakers and scientific events in 2015. The Executive Committee of the EMS, via its Meetings Committee, is willing to provide support that may cover the cost of the EMS Lecturers and of Distinguished Speakers, and to give partial support to the organization of EMS Weekends. Since resources are scarce, only a limited number of events can be supported. Deadline:

- EMS Distinguished Speaker: Three months before the conference takes place.
- EMS Joint Mathematical Weekend: August 31, 2014.
- Special EMS Activities: any time.
- EMS Summer Schools in Mathematics 2015: September 30, 2014.

http://www.euro-math-soc.eu/node/add/summer-school-2015

Interesting news and publications

Journal of Geometric Mechanics (JGM).

Volume 6, Number 3, September 2014.

http://www.aimsciences.org/journals/contents Listnew.jsp?pubID=714

International Journal of Geometric Methods in Modern Physics.

Volume 11, Number 09, October 2014.

Proceedings of the XXII IFWGP, University of Évora, Portugal, 2013

http://www.worldscientific.com/toc/ijgmmp/11/

IMU-Net 67.

September 2014.

http://www.mathunion.org/imu-net/archive/2014/imu-net-067/

ICMAT Newsletter.

Seventh number.

http://www.icmat.es/outreach/newsletter/num7

MPE2013 moves into Mathematics of Planet Earth.

The successful year-long initiative will continue past 2013.

http://www.rsme.es/org/press_release_EN_Dec 11.pdf

Reports@SCM.

Reports@SCM is a non-profit electronic research journal on Mathematics published by the Societat Catalana de Matemàtiques (SCM) which originated from the desire of helping students and

young researchers in their first steps into the world of research publication.

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

Info website for Ph.D Students in Mathematics.

i-Math Consolider project (only in Spanish) http://www.doctoradomath.es/

Online Encyclopedia of Mathematics.

http://www.encyclopediaofmath.org/index.php/Main_Page

Mathematics in Europe.

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

Matemáticas y sus fronteras.

Those interested in publishing something, contact with Manuel de León mdeleon.dos@gmail.com http://weblogs.madrimasd.org/matematicas/

Courses online of Mathematics, Physics,...

Courses from 62 universities.

https://www.coursera.org/courses?orderby=upcoming

Advice for New Ph.D. 's.

http://www.ams.org/profession/career-info/new-phds/new-phds

Professional network for scientists.

http://www.researchgate.net/

Network's members preprints and papers

J.F. Cariñena, I. Gheorghiu, E. Martínez and P. Santos: Conformal Killing vector fields and a virial theorem.

1410.2032

[math-ph gr-qc math.MP]

C. Nowzari and J. Cortes: Team-triggered coordination for real-time control of networked cyber-physical systems.

1410.2298

[math.OC]

F. Jimenez: Lagrange-Dirac systems for charged particles in gauge fields.

1410.3249

[math-ph math.DG math.MP]

M. Rodriguez-Olmos and M. Teixidó-Román: The Hamiltonian tube of a cotangent-lifted Action.

1410.3697

[math.SG]

C. Esposito and E. Miranda: Rigidity of Poisson Lie group actions.

1410.5202

[math-ph math.MP math.SG]

A. Bloch, L. Colombo, R. Gupta and D. Martin de Diego: A geometric approach to the optimal control of nonholnomic mechanical systems.

1410.5682

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

L. Colombo, S. Ferraro and D. Martín de Diego: Geometric integrators for higher-order variational systems and their application to optimal control. 1410.5766 [math.NA math.OC]

Network's collaborators preprints and papers

T. Daudé, N. Kamran and F. Nicoleau: Inverse scattering at fixed energy on asymptotically hyperbolic Liouville surfaces.

1409.6229

[math-ph math.MP]

Z. Chen, M. Stiénon and P. Xu: A Hopf algebra associated to a Lie pair.

1409.6803

[math.AG math-ph math.AT math.DG math.MP math.QA]

G. Aminov, H.W. Braden, A. Mironov, A. Morozov and A. Zotov: Seiberg-Witten curves and double-elliptic integrable systems.

1410.0698

[hep-th math-ph math.MP nlin.SI]

H. Zhang: Asymptotic representations of quantum affine superalgebras.

1410.0837

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

B. Cappelletti-Montano and G. Dileo: Nearly Sasakian geometry and SU(2)-structures.

1410.0942

[math.DG]

D. Martínez Torres, Á. del Pino and F. Presas: Transverse geometry of foliations calibrated by non-degenerate closed 2-forms.

1410.3043

[math.DG]

M. Grützmann, J.-P. Michel and P. Xu: Weyl quantization of degree 2 symplectic graded manifolds.

1410.3346

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

F. Munteanu: Symmetries, psudosymmetries and conservation laws in Lagrangian and Hamiltonian k-symplectic formalisms.

1410.4392

[math.DG math-ph math.MP]

S. Post and D. Riglioni: Quantum integrals from coalgebra structure.

1410.4495

[math-ph math.MP]

F. D'Andrea and G. Landi: Quantum weighted projective and lens spaces.

1410.4508

[math.QA math-ph math.KT math.MP]

 ${\bf H.}$ Bursztyn, A. Cabrera and M. del Hoyo: Vector bundles over Lie groupoids and algebroids.

1410.5135

[math.DG math.SG]

F. Gay-Balmaz and H. Yoshimura: Dirac reduction for nonholonomic mechanical systems and semidirect Products.

1410.5394

[math.SG math-ph math.MP nlin.CD]

Other Conferences

Fifth Ya.B. Lopatinskii International Conference of Young Scientists on Differential Equations and Its Applications.

November 5–8, 2014. Donetsk, Ukraine.

http://math.donnu.edu.ua/en-us/science/conferences/ICL2014

International Conference on Recent Advances in Pure and Applied Mathematics.

November 6–9, 2014. Antalya, Turkey.

http://www.icrapam.org

Barcelona Mathematical Days 2014.

November 7–8, 2014. Barcelona, Spain.

http://bmd2014.espais.iec.cat/

Conference on Mathematics and its Applications-2014.

November 13–17, 2014. Kuwait.

http://cma2014.science.ku.edu.kw

ICMAT-China Exploratory Workshop.

November 17–21, 2014. Madrid, Spain.

http://www.icmat.es/congresos/2014/ICE/

3rd International Conference on Complex Dynamical Systems and Their Applications: New Mathematical Concepts and Applications.

November 23–26, 2014. Ankara, Turkey. http://www.cdss2014.org/

International Conference on Pure and Applied Mathematics, Goroka 2014: ICPAM-GOROKA (2014).

November 24–28, 2014. Goroka, Eastern Highlands Pr, Nigeria.

http://icpam-goroka2014.blogspot.com

I Brazilian Congress of Young Researchers in Pure and Applied Mathematics.

December 10-12, 2014. Brazil. http://jovens.ime.usp.br/jovens/en

Variational Methods for Evolution.

December 14-20, 2014. Oberwolfach, Germany. http://www.mfo.de/www/schedule/2014/all

3rd International Conference on Mathematical Sciences and Applications.

December 20-21, 2014. New Delhi, India. http://ijmsa.yolasite.com/icmsa-2014.php

New Discretization Methods for the Numerical Approximation of PDEs.

January 11-17, 2015. Oberwolfach, Germany. http://www.mfo.de/www/schedule/2015/all

Lie Theory and Representation Theory.

January 18-February 6, 2015. Pisa, Italy. http://www.crm.sns.it/event/293

XXIst Oporto Meeting on Geometry, Topology and Physics.

February 4-7, 2015. Oporto, Portugal. http://cmup.fc.up.pt/cmup/omgtp/2015/

Discrete Differential Geometry.

March 1-7, 2015. Oberwolfach, Germany. http://www.mfo.de/www/schedule/2015/all

SIAM Conference on Applications of Dynamical Systems.

May 17-21, 2015. Snowbird, Utah, USA. http://www.siam.org/meetings/ds15/

ICDDEA 2015? International Conference on Differential & Difference Equations and Applications 2015.

May 18-22, 2015. Amadora, Portugal. https://sites.google.com/site/sandrapinelas/icddea-2015

Integrability in Mechanics and Geometry: Theory and Computations.

June 1–5, 2015. ICERM, Providence, Rhode Island.

http://icerm.brown.edu/topical_workshops/t
w15-1-img/

XVII-th International Conference on Geometry, Integrability and Quantization.

June 4-9, 2015. Bulgaria.

http://www.bio21.bas.bg/conference

Classical and Stochastic Geometric Mechanics.

June 8–12, 2015.

http://bernoulli.epfl.ch/PublicEvent.php?event=1044

AMS-EMS-SPM International Meeting 2015.

June 10-13, 2015. Porto, Portugal. http://aep-math2015.spm.pt/

Nordfjordeid Summer school 2015 "Lie groups and pseudogroups actions: From classical to differential invariants".

June 14-18, 2015. Nordfjordeid, Norway. http://serre.mat-stat.uit.no/slcc2015/Nordfjordeid-2015-Lie-theory.htm

The Eighth Congress of Romanian Mathematicians.

June 25-30, 2015. Iasi, Romania. http://www.imar.ro/congmatro8/conf.php

EQUADIFF 2015.

July 6-10, 2015. Lyon, France. http://equadiff2015.sciencesconf.org/

SIAM Conference on Control and its Applications.

July 8-10, 2015. Paris, France. http://www.siam.org/meetings/ct15/

ICIAM 2015. 8th International Congress on Industrial and Applied Mathematics.

August 10-14, 2015. Beijing. China. http://www.iciam2015.cn/

Symplectic geometry and topology.

September 1–December 11, 2015. Institut Mittag-Leffler, Sweden.

http://www.mittag-leffler.se/?q=1516f

Higher Structures in String Theory and Quantum Field Theory.

November 16-December 18, 2015. Wien, Viena.

http://www.esi.ac.at/activities/events/2015/higher-structures-in-string-theory-and-quantum-field-theory

Connections for Women: Differential Geometry Workshop.

January 14–15, 2016. Berkeley, California, USA. http://www.msri.org/workshops/702

7th European Congress of Mathematics. July 18-22, 2016. Berlin, Germany. http://www.7ecm.de/

NOTE: If you want to include information in this info-sheet, please send it to gmcnet@ull.es