Contents

GMC Network Infosheet
June 2011

*Network's activities*_____

V International Summer School on Geometry, Mechanics and Control
La Cristalera, Madrid, Spain
July 4-8, 2011.
http://www.gmcnetwork.org/ssgmc11

XX International Fall Workshop on Geometry and Physics
ICMAT, Madrid, Spain.
August 31-September 3, 2011.
http://www.icmat.es/congresos/xxifwgp

VI International Young Researchers Workshop on Geometry, Mechanics and Control
Coimbra, Portugal
January 9-13, 2012.

*Job offers, fellowships and awards*_____

*Ph D offers*_____

Graduate Teaching Assistantships
School of Mathematics and Statistics.
University of Sheffield, UK.
Closing date: July 29, 2011.
http://www.jobs.ac.uk/job/ACB687/graduate-teaching-assistantships-gtas/

Scholarship Program for Fulltime Postgraduate Courses (PEC-PG CAPES)
Closing date: July 29, 2011.
http://www.auip.org/images/stories/DATOS/PDF/2011/Becas_Univ_Asociadas/Info_PECPG_pt.pdf

SADCO call for applications to PhD
The newly started project Marie Curie Initial Training Network "Sensitivity Analysis for Deterministic Controller Design" – SADCO (see the WEB site http://itn-sadco.inria.fr/), funded by the European Union, offers several very well paid PhD and post-doc positions as well as funding for scientific activities. Good students are encouraged to submit their candidature on several topics related to control theory and games. There is a new call for applications for candidates starting their activity on September-October 2011.

According with the EU rules, the hired person is supposed to spend, within the three years of the position, six months in the "secondment" institution, which is indicated in the call for applications:

The salary for a PhD student, for example, consists of two parts: one is fixed (33,000 euros per year), whereas the other is automatically computed according to some parameters (country, age, status,….).The total amount should be in average at least 40,000 euros per year, before taxes.

Deadline for application depending on the position.

Fellowships "José Castillejo" 2011
Closing date: June 29, 2011.
http://www.educacion.gob.es/educacion/universid
ades/convocatorias/titulados-doctores-
profesores/estancias-profesores-centros-
extranjeros/modalidad-b.html

Research Associate in Quantum Information (Three posts)
School of Mathematics, University of Bristol, UK.
Closing date: June 30, 2011.
http://jobs.ac.uk/job/ACR361/

Postdoctoral Fellowship on Dynamical Systems.
National University of Singapore
Closing date: July 1, 2011.
http://www.math-jobs.com/j.php?i=970

1-year postdoctoral Fellowship in Geometric Numerical Integration of Differential Equations.
La Trobe University, Melbourne, Australia.
Starting date will be during October, 2011 (somewhat negotiable). PhD in a relevant area, and significant experience in the numerical solution of differential equations are essential.

Interested candidates should send a CV, including
  - list of publications
  - statement of research interests (one page maximum)
  - contact details of at least 3 academic referees
to:
Reinout Quispel
Professor of Mathematics
La Trobe University
prof.quispel@latrobe.edu.au
Closing date: July 7, 2011.

Postdoctoral Fellowship on Calculus of Variations
Dipartimento di Matematica "F. Casorati" dell'Università degli Studi di Pavia.
Closing date: July 15, 2011
http://www-dimat.unipv.it/~erc_pratelli/Post-
doc_Pavia_2011/Postdoc_July_2011_Pavia.htm

Grants for short postdoctoral research visits at IMUS
The goal of these grants is the establishment or development of research collaborations between young doctors from outside the University of Seville and University researchers in the field of Mathematics or its applications to other disciplines. In this edition, grants are offered for post-doctoral stays in the IMUS for a total duration of 5 months. The stays will take place between January 1st, 2011 and July 31st, 2012.
Closing date: July 31, 2011.
http://www.imus.us.es/pdf/estancias-IMUS-2011-
en.pdf

Marie-Curie Actions Calls: FP7-PEOPLE-2011-IEF, FP7-PEOPLE-2011-IOF, FP7-PEOPLE-2011-IIF
Closing date: August 11, 2011.
http://cordis.europa.eu/fp7/dc/index.cfm?fuseactio
n=UserSite.FP7CallsPage#Marie-
Curie%20Actions

6 postdoctoral fellowships by SADCO network (Sensitivity Analysis for Deterministic Controller Design).
Different locations in Europe: Paris, Louvain, Bayreuth, Padova, Rome, Porto, London.
Research topics: Control theory, stabilization and optimization of nonlinear systems, Hamilton-Jacobi theory, differential games, perturbed systems, numerical analysis.
Latest deadline: October 31, 2011.
http://itn-sadco.inria.fr/available-positions

Postdoc Position at LAAS-CNRS, Univ. Toulouse, France
We are seeking candidates for a one-year post-doctoral position at LAAS-CNRS, University of Toulouse, France, within an ongoing project focusing on semidefinite programming and algebraic geometry for polynomial optimal control. The project may focus on software implementation (under our existing Matlab toolbox GloptiPoly for solving generalized problems of moments), transfer of knowledge to the French aerospace industry (contracts with EADS Astrium and the French space agency CNES), or more fundamental research activities covering real algebraic geometry (polynomial equations and inequalities), functional analysis (theory of moments), mathematical programming (convex optimization over the cone of positive semidefinite matrices), and nonlinear dynamical systems control. A strong background in applied mathematics is required. Some knowledge of systems control is welcome.

Interested candidates please send your detailed curriculum vitae to Didier Henrion,
http://homepages.laas.fr/henrion

Offers for visiting and senior researcher

Lecturer in Applied Mathematics
School of Mathematics
University of Leeds.
Closing date: June 24, 2011
http://www.jobs.ac.uk/job/ACU146/

Grant for inviting Fullbright speakers.
Grant for Spanish institutions to invite American Fulbright lecturers for a maximum period of two weeks
Deadline for applications: June 29, 2011

http://www.fulbright.es/programas/ayudas-institucionales/ayudas-para-invitar-a-conferenciantes-fulbright/2010-2011

Grants for stays of Professors and senior researchers in foreign higher education and research institutions, including Program "Salvador de Madariaga."
Closing date: June 29, 2011
http://www.educacion.gob.es/educacion/universidades/convocatorias/titulados-doctores-profesores/estancias-profesores-centros-extranjeros/modalidad-a.html

Lecturer, Associate Professor, Professor.
School of Science, Department of Mathematics and Applied mathematics, Tianjin University, China.
Closing date: Aug. 29, 2011.
http://sciences.academickeys.com/seeker_job_display.php?dothis=display&job[IDX]=28518-SC110120m-8e&oid=0

Grants for stays of foreign teachers and researchers under a sabbatical year in Spanish Centers.
Closing date: September 21, 2011
http://www.educacion.gob.es/educacion/universidades/convocatorias/titulados-doctores-

profesores/estancias-profesores-extranjeros-centros-espanoles/modalidad-a.html

2 Full-time Tenure-track Positions in Applied Mathematics
University of Maryland Eastern Shore Princess Anne, MD, USA. Position Start Date: August 2011
Closing date: Open until filled.
http://sciences.academickeys.com/seeker_job_display.php?dothis=display&job[IDX]=28101-SC110131w-8e&oid=790411

Visiting Research at IMI. Call 2011
Instituto de Matemática Interdisciplinar
Universidad Complutense de Madrid

This call aims to enhance cooperation between IMI researchers and high level researchers and promising young students carrying out their activity in other scientific institutions, in Spain or abroad. During their stays, visitors will collaborate with host IMI Program activities. The following modalities will be considered:
   a) Senior Visiting Researchers
   b) Postdoctoral stays
   c) Predoc Internships
   d) Exploratory meetings
The call will be open permanently. Evaluation and awarding is expected to be made on a monthly basis.
More information:
http://www.mat.ucm.es/IMI/ProgramaVisitantesIMI2011/Call_IMIVisitingResearchers_2011.pdf

Awards _____

Fundación BBVA Award: "Fronteras del Conocimiento"
Deadline: June 30, 2011
http://www.fbbva.es/TLFU/tlfu/esp/microsites/premios/fronteras/presentacion/index.jsp

Candidate proposals for EMS awards.
Deadline: November 1, 2011.
http://www.euro-math-soc.eu/ems_prizes.html

Candidate proposals for Otto Award.
Deadline: December 31, 2011

http://www.euro-math-soc.eu/otto_neugebauer_prize.html

Scientific "Joan Lluís Vives" Award.
For PhD students about to defend the thesis.
http://www.vives.org/pcc/

Felix Klein Award 2012
Deadline: December 31, 2011
http://www.euro-math-soc.eu/felix_klein_prize.html

Ciencia en Acción Competition
http://www.cienciaenaccion.org/

Financial support for research projects and conferences _____

i-MATH Financial support 2011 for activities that will take place before October 30, 2011.
Closing date: June 30, 2011.
http://www.i-math.org/?q=en/extraordinary-call

Marie Curie Career Integration Grants (GIG)
Deadlines: September 6, 2011 at 17:00 (Brussels local time)
More information:

http://cordis.europa.eu/fp7/dc/index.cfm?fuseaction=usersite.FP7DetailsCallPage&call_id=379

Financial support for organization of conferences by Spanish Ministry of Science and Innovation.
Closing date: from April 15, 2011 to June 30, 2011; from July 1, 2011 to October 25, 2011.
http://www.boe.es/diario_boe/txt.php?id=BOE-A-2010-19639

2013 ICPAM-CIMPA research schools call for projects
Deadlines complete propoltal: October 1, 2011.
More information:
http://www.cimpa-icpam.org/spip.php?article124

Complementary actions for non-guided fundamental research projects.
National Program for Fundamental Research Project
Deadline for submission depending on the offer: for the first five types from April 15, 2011 to June 30, 2011; July 7, 2011 to October 25, 2011; for the modality F only the first two periods and for type G only the first of those periods
More information:
http://www.micinn.es/portal/site/MICINN/menuitem.dbc68b34d11ccbd5d52ffeb801432ea0/?vgnextoid=f02093ee6b80d210VgnVCM1000001d04140aRCRD&vgnextchannel=3acb282978ea0210VgnVCM1000001034e20aRCRD

Interesting news and publications

International Mathematical Union Newsletter, May 2011.
http://www.mathunion.org/imu-net

The IRSES Network `GEOMECH'
GEOMECH is an IRSES network sponsored within the 7th EU Framework Program and is coordinated by Ghent University. It includes partners from Argentina, Belgium, Czech Republic, Japan, Spain and the USA and it aims to facilitate research exchange visits between these partners. More information on the network can be found on the website http://www.geomechnetwork.ugent.be/ The website will also serve as the forum where the network's activities and outcomes will be disseminated.

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

Journal of Geometric Mechanics (JGM)
Vol. 3, n. 1, March 2011.
http://aimsciences.org/journals/displayPapers1.jsp?pubID=436

Free access to Ph.D. dissertations all around the world.
http://www.ndltd.org/find

Professional network for scientists.
http://www.researchgate.net/

Network's members preprints and papers

A. De Nicola, J. C. Marrero, E. Padron.
Reduction of Poisson-Nijenhuis Lie algebroids to symplectic-Nijenhuis Lie algebroids with nondegenerate Nijenhuis tensor.
arXiv:1105.4858v1 [math.DG]

P.D. Prieto-Martínez, N. Román-Roy.
Lagrangian-Hamiltonian unified formalism for autonomous higher-order dynamical systems.
arXiv:1106.3261v1 [math-ph]

H. Cendra, M. Etchechoury, S.J. Ferraro.
The Dirac Theory of constraints, the Gotay-Nester theory and Poisson Geometry.
arXiv:1106.3354v1 [math-ph]

Network's collaborators preprints and papers

T. Mestdag, A.M. Bloch, O.E. Fernandez: Hamiltonization and geometric integration of nonholonomic mechanical systems. Proceedings 8th National Congress on Theoretical and Applied Mechanics, Brussels (Belgium), 2009, 230-236.
http://arxiv.org/abs/1105.5223

B. Langerock, T. Mestdag, J. Vankerschaver: Routh reduction by stages.
arXiv:1106.2950v1 [math-ph]

C. Esposito: Poisson reduction.
arXiv:1106.3878v1 [math.DG]

F. Gay-Balmaz, D. D. Holm and T. S. Ratiu: Geometric dynamics of optimization.
arXiv:0912.2989v3 [nlin.CD]

Other conferences

Workshop on Quantum Mechanics on Phase Space.
June 19-29, 2011. Universidad Carlos III, Leganés, Madrid, Spain.
http://www.rsef2.com/QMPhS2011/

Conference on Geometry: Theory and Applications.
June 20-24, 2011. Stift Vorau, Styria, Austria.
http://www.ag.jku.at/vorau2011

9th edition of the International Workshop "Lie Theory and Its Applications in Physics"
June 20-26, 2011. Resort "Chaika", near Varna, on the Black Sea, Bulgaria.
It is a meeting intended for both physicists and mathematicians.
Contact information: dobrev@inrne.bas.bg

Mathematische Arbeitstagung 2011 BONN (D. Zagier's 60th birthday)
June 24-30, 2011, Max Planck Inst. for Mathematics, Germany.
http://www.mpim-bonn.mpg.de/node/2866

XXX Workshop on Geometric Methods in Physics.
June 26-July 2, 2011. Bialowieza, Poland.
http://wgmp.uwb.edu.pl/index.html

Dyson-Schwinger Equations and Faà di Bruno Meeting on Hopf Algebras in Physics and Combinatorics.
June 27 - July 1, 2011, IRMA, Strasbourg, France.
http://www.th.physik.uni-bonn.de/people/fard/dsfdb2011/

Geometry of Manifolds and Mathematical Physics to celebrate the 80th birthday of Wlodzimierz Tulczyjew
June 27-July 1, 2011. Krakow,
http://www.im.uj.edu.pl/dgmp2011

GESTA 2011: New Trends in Symplectic and Contact Geometry.
June 27-July 1, 2011. CIEM, Castro Urdiales, Spain.
http://www.upc.edu/gesta/lecturers.html

50th Séminaire de mathématiques supérieures: Metric Measures Spaces: Geometric and Analytic Aspects.
June 27 – July 8, 2011. Université de Montréal, Canada.
http://www.dms.umontreal.ca/~sms/Metric11/index_e.php

American Control Conference.
June 29-July 1, 2011. San Francisco, California, USA.
http://a2c2.org/conferences/acc2011/

Thematic Program on Discrete Geometry and Applications.
July-December 2011. Fields Institute, Toronto, ON, Canada.
http://www.fields.utoronto.ca/programs/scientific/11-12/discretegeom/index.html

ESF-EMS-ERCOM Mathematics Conference: Completely Integrable Systems and Applications.
July 3-8, 2011. Erwin Schrödinger Institute, Vienna, Austria.
http://www.esf.org/index.php?id=7348

Gauge theory and complex geometry.
July 4-23, 2011. University of Leed, UK.
http://www.maths.leeds.ac.uk/pure/geometry/gtcg/

The 2011 International Conference of Applied and Engineering Mathematics.
July 6-8, 2011. Imperial College London, UK.
http://www.euro-math-soc.eu/node/710

International Congress on Industrial and Applied Mathematics: Marsden Memorial minisymposium.
July 18-22, 2011, Vancouver, BC, Canada.
http://www.iciam2011.com/

Workshop on Rough Paths and Combinatorics in Control Theory.
July 25-27, University of California, San Diego, USA.
http://www.th.physik.uni-bonn.de/people/fard/RPCCT2011/

SIAM Conference on Control and Its Applications
July 25-27, 2011. Hyatt Regency Baltimore, Baltimore, Maryland, USA.
http://www.siam.org/meetings/ct11/

Utrecht Summer School in Theoretical Physics.
August 15-26, 2011. Utrecht University. Netherlands.
http://www.utrechtsummerschool.nl/index.php?type=courses&code=H2

3rd International Conference on Control and Optimization with Industrial Applications – COIA 2011
August 22-24, 2011. Bilkent University, Ankara, Turkey
http://www.ee.bilkent.edu.tr/~coia2011

18th World Congress of the International Federation of Automatic Control (IFAC)
August 28-September 2, 2011. Milano, Italy.
http://www.ifac2011.org/

LMS-EPSRC Short Course on "Theoretical Fluid Dynamics"
August 29-September 2, 2011. Heriot-Watt University, Edinburgh, UK.
http://www.ma.hw.ac.uk/~simonm/lms-epsrc_short_course_2011/

VI International Meeting on Lorentzian Geoemtry.
September 6-9, 2011. Granada, Spain.
http://gigda.ugr.es/gelogra/

Satellite Meeting Unravelling and Controlling Discrete Dynamical Systems
September 12-16, 2011. Vienna, Austria.
http://www.disdysys.ugent.be/

Conference on Geometric Structures in Mathematical Physics.
September 19-26, 2011. Albena, Bulgaria.
http://www.fmi.uni-sofia.bg/ivanovsp/MathPhys2011.html

Joint Mathematical Conference of the Austrian Mathematical Society at the Donau-Universität Krems, together with the Catalan, Czech, Slovak and Slovenian Mathematical Societies.
September 25-28, 2011. Krems, Austria.
http://www.dmg.tuwien.ac.at/OMG/OMG-Tagung/

Primer Encuentro de Jóvenes Investigadores en Matemáticas(PEJIM).
September 28-30, 2011. La Laguna, Spain.

RSME-EMS Mathematical Weekend.
October 7-9, 2011. Bilbao, Spain.
It includes four special sessions: Groups and Representations, Symplectic Geometry, PDEs in Mechanics and Physics, and Functional Analysis Methods in Quantum Information.
http://www.ehu.es/emsweekend

International Conference Kolmogorov Readings: General control problems and their applications (GCP - 2011)
October 10-14, 2011. Tambov, Russia.
http://www.tambovopu2011.narod.ru/

Workshop on Algebra Geometry Mathematical Physics.
October 24-26, 2011. Mulhouse, France.
Registration deadline: September 30, 2011.
http://www.agmp.eu/mul11/

1st "Gone Fishing" meeting on Poisson geometry.
October 29-30, 2011. Mathematics Department of Washington University in St. Louis, MO, USA.
If you wish to attend or give a talk, send an e-mail to xtang@math.wustl.edu by August 31, 2011.
http://www.math.wustl.edu/~xtang/gone-fishing

50th IEEE Conference on Decision and Control and European Control Conference.
December 12-15, 2011. Orlando, Florida.
http://control.disp.uniroma2.it/cdcecc2011

NOTE: if you want to include information in this infosheet, please send it to gmcnet@ull.es