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GMC Network Infosheet
July 2011

Network's activities

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

Geometry of Mechanics, Field Theory and Control: a Workshop celebrating the 65th birthday of M. C. Muñoz-Lecanda
Technical University of Catalonia, Barcelona, Spain.
December 19-20, 2011.

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

Job offers, fellowships and awards

Undergraduate research offers

Scholarships for graduate or undergraduate students of Mathematics
The IUMA (Zaragoza) announces four scholarships to start in research for recent graduates or students who will complete the final Degree year the coming course.
The grant will cover the period between October 1 and December 31, 2011. Each grant amounts to 1000 euro per month.
Deadline: September 9, 2011 (1:00 pm)
More information: http://www.rsme.es/comis/prof/iumabecas.pdf

Collaborations scholarships
Spanish Ministry of Education announces collaboration scholarships to start in research for students who will complete the second cycle studies or final year Degree the coming course.
Call: BOE 07/06/2011
http://www.boe.es/boe/dias/2011/07/06/pdfs/BOE-A-2011-11628.pdf
Closing date: October 14, 2011
More information: http://www.educacion.gob.es/horizontales/servicios/becas-ayudas-subvenciones/para-estudiar/grado/beca-colaboracion.html

Ph D offers

2011 CNOq-TWAS Fellowships Programme
Young scientists from developing countries (other than Brazil) are invited to apply to the 2011 CNPq-TWAS Fellowships programme. The fellowships offered by the CNPq-TWAS Fellowships programme allow scientists from developing countries (other than Brazil) to study or to do research in natural sciences in Brazil and then to return home to continue their careers.

The National Council for Scientific and Technological Development (CNPq), Brasilia, Brazil – www.cnpq.br – is a foundation linked to the Brazilian Ministry of Science and Technology. CNPq is one of the major public institutions supporting science, technology and innovation in Brazil and contributes directly to the training of researchers in the various fields of knowledge.TWAS, the Academy of Sciences for the Developing World – www.twas.org – is an autonomous international organization founded in Trieste, Italy, in 1983. Its principal aim is to promote scientific capacity and excellence for sustainable development in the South.

Types of fellowships and duration:

A. *Full-time* postgraduate/doctorate fellowships: CNPq-TWAS Postgraduate Fellowships are tenable at research institutions in Brazil for a period of up to 48 months and are awarded to students from developing countries (other than Brazil) to enable them to pursue studies leading towards a PhD degree in natural sciences.

B. *Sandwich* postgraduate/doctorate fellowships: CNPq-TWAS Sandwich Postgraduate Fellowships are tenable at research institutions in Brazil for a minimum period of 6 months to a maximum period of 12 months, and are awarded to students from developing countries (other than Brazil) to enable them to develop part of their PhD course in the natural sciences in Brazil. Under the *sandwich* programme, applicants *must* be registered for a PhD degree in their home country.

Deadline: July 29, 2011, at 6 PM in Brasilia time zone (GMT -04:00)
http://www.cnpq.br/editais/ct/2011/twas.htm

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

Ph D Position in Seville
Closing date: July 29, 2011 (18:00)
http://www.imus.us.es/index.php?option=com_content&view=article&id=140%3Aplaza-predoctoral-en-sevilla&catid=56%3Aconvocatorias-externas&lang=es

I2C Program 2011
The SUG announces PhD grants for graduate students wishing to start a doctoral thesis at University of Santiago de Compostela, University of A Coruña or University of Vigo.
Call: DOG 07/15/2011
http://www.xunta.es/dog/Publicados/2011/20110715/AnuncioC3F1-060711-4129_es.pdf

Deadline: August 16, 2011
More information:
http://www.edu.xunta.es/web/node/2936

PhD and Postdoc Position at the Department of Mathematics of the University of Basel, Switzerland. Workgroup of Gianluca Crippa

Looking for candidates for PhD or Post-Doc positions under supervision of Gianluca Crippa in the newly established Analysis Group at the Department of Mathematics of the University of Basel (Switzerland).

The main lines of research I am interested in developing are the following ones:

- Partial Differential Equations, mostly of hyperbolic type (with emphasis on transport and continuity equations and on conservation laws)
- Geometric measure theory
- Fluid dynamics
- Calculus of Variations

Further details on my research interests can be found on my present WebPages: cvgmt.sns.it/people/crippa and www.unipr.it/~crigia55
Deadline: August 31, 2011
http://www.math-jobs.com/j.php?i=1297

Graduate Student Fellowship in Mathematics
The IMUB and the UB Mathematics Faculty offer two researches grants for graduate students wishing to start a doctoral thesis in Mathematics at the University of Barcelona.
The grant will cover the period between October 1, 2011 and May 31, 2012, with a possible extension until September 30, 2012. Each grant amounts to 900 euro (gross) per month
Closing date: September 1 to 15, 2011.
More information:
http://blocmat.ub.edu/2011/07/07/limub-convoca-dues-beques-diniciacio-a-la-recerca-en-matematiques/

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

Postdoctoral fellowships

2011 CNOq-TWAS Fellowships Programme. Postdoctoral fellowships.
CNPq-TWAS Postdoctoral Fellowships are tenable at research institutions in Brazil for a minimum period of 6 months to a maximum period of 12 months. They are awarded to scientists from developing countries (other than Brazil) to enable them to pursue postdoctoral research in the natural sciences.
Deadline: July 29, 2011, at 6 PM in Brasilia time zone (GMT -04:00)
http://www.cnpq.br/editais/ct/2011/twas.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?fuseaction=UserSite.FP7CallsPage#Marie-Curie%20Actions

Postdoc Fellowships at CIRM. Fondazione Bruno Kessler

The CIRM opens the application for two Postdoc Positions, an annual one and a triennial one for researchers in the field of Mathematics. Each fellowship amount to Euro 23500 gross per year.

Deadline for applications: September 20, 2011.
http://cirm.fbk.eu/en/node/124

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 Mathematics
School of Physics, Astronomy and Mathematics
University of Hertfordshire
Closing date: July 28, 2011
http://www.jobs.ac.uk/job/ACW829/

Lecturer in Applied Mathematics
School of Mathematical Sciences
University of Nottingham
Closing date: August 2, 2011
http://www.jobs.ac.uk/job/ACW968/

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

Call for Visiting Professors at CIRM.
Fondazione Bruno Kessler
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

1. individual application, or
2. Invitation by a professor of Trento University or by a member of the Advisory Board.

http://cirm.fbk.eu/en/Visiting+Professors

Research in Pairs Program
Centro Internazionale per la Ricerca Matematica
Fondazione Bruno Kessler
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.
http://cirm.fbk.eu/en/node/122

Awards

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

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

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

CIRM call for conferences
Call to submit a proposal and organize a conference in Mathematics, with the support and co-financed by the CIRM, for the year 2012.
Deadline: September 15, 2011
http://cirm.fbk.eu/en/node/120

2013 ICPAM-CIMPA research schools call for projects

Deadlines complete proposal: October 1, 2011.
More information:
http://www.cimpa-icpam.org/spip.php?article124

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

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

National R & D Internationalisation Programme.

This programme includes several sub programmes:
- EUROINVESTIGACIÓN (EUROCORES and YIP projects)
- International projects
- Promoting international scientific cooperation
Specialisation in International Organisations
Actions relating to international scientific infrastructures
Deadline depending of the sub programme.
http://www.micinn.es/portal/site/MICINN/menuitem.d20caeda35a0c5dc7c68b11001432ea0/?vgnextoid=71f256bc1aea0210VgnVCM1000001034e20aRCRD&lang_choosen=en

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.

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

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?puhID=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

L. Colombo, D. Martín de Diego, M. Zucalli.
On variational integrators for optimal control of mechanics control systems
Revista de la Real Academia de Ciencias Exactas, Fisicas y Naturales. Serie A. Matematicas
https://springerlink3.metapress.com/content/c4158266442378p4/resource-

secured/?target=fulltext.pdf&sid=uyhxbr2mmykp1o55aawxm055&sh=www.springerlink.com

Network's collaborators preprints and papers

E. B. Dryden, V. Guillemin, R. Sena-Dias
Equivariant inverse spectral theory and toric orbifolds.
http://arxiv.org/abs/1107.0986

A.J. van der Schaft, B.M. Maschke
Discrete conservation laws and port-Hamiltonian systems on graphs and complexes.
http://arxiv.org/abs/1107.2006

R. Albuquerque, R. Picken
On invariants of almost symplectic connections
http://arxiv.org/abs/1107.1860

Other conferences

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

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 Geometry.
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.

Special Year on Symplectic Dynamics.
October 10, 2011-March 2012, Institute for Advanced Study, Princeton, USA.
http://www.math.ias.edu/sp/symplectic-dynamics

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

The 9th AIMS Conference on Dynamical Systems, Differential Equations and Applications.
July 1-5, 2012, Orlando, Florida, USA.
http://aimsciences.org/conferences/2012/index.html

6th European Congress of Mathematics
July, 2-7, 2012. Kraków. Poland
http://www.6ecm.pl/en/home

EECI Graduate School on Control
http://www.eeci-institute.eu/GSC2012

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