

# GMC Network Infosheet

June 2018



## Geometry, Mechanics and Control Network Infosheet

June 2018

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### Network's activities

**XII International ICMAT Summer School on Geometry, Mechanics and Control.**

2–6 July 2018, Santiago de Compostela, Spain.

<http://gmcnet.webs.u11.es/?q=activity-detall1/1927>

**VI Iberoamerican Meeting on Geometry, Mechanics and Control.**

13–17 August 2018, Guanajuato, Mexico.

<http://gmc.eventos.cimat.mx/node/760>

**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=especiales>

### Other Conferences

**XXXVII Workshop on Geometric Methods in Physics.**

1–7 July 2018, Białowieża, Poland.

<http://wgmp.uwb.edu.pl/>

**PRACQSYS 2018: Principles and Applications of Control in Quantum Systems.**

2–6 July, 2018. Paris, France.

<https://sites.google.com/view/mcqs2018/pracqsys-2018>

**The 32nd International Colloquium on Group Theoretical Methods in Physics.**

9–13 July 2018, Prague, Czech Republic.

<http://http://www.group32.cz/>

**The Sixth International Conference on Control and Optimization with Industrial Applications.**

11–13 July 2018, Baku, Azerbaijan.

<http://coia-conf.org/en/>

**Non-Hermitian Quantum Mechanics and Symplectic Geometry.**

16–20 July 2018, San José, California, USA.

<https://aimath.org/workshops/upcoming/nhquantumsymp/>

**CBMS-NSF Conference: Computational Methods in Optimal Control.**  
23–27 July 2018, Jackson, Mississippi.  
<http://www.siue.edu/~juliu/cbms18/>

**Modern Trends in Differential Geometry.**  
23–27 July 2018, São Paulo, Brazil.  
<https://www.ime.usp.br/~mtg/index.html>

**Summer Graduate School: From Symplectic Geometry to Chaos.**  
23 July–3 August 2018, Berkeley, California, USA.  
[http://www.msri.org/summer\\_schools/825](http://www.msri.org/summer_schools/825)

**Second Global Conference on Applied Physics, Mathematics and Computing.**  
25–27 July 2018, Madrid, Spain.  
<http://physicsmathcomputing.com/>

**International Congress of Mathematicians.**  
1–9 August 2018, Rio de Janeiro, Brazil.  
<http://www.icm2018.org/portal/en/home/>

**Hamiltonian Systems, from Topology to Applications through Analysis.**  
13 August–14 December 2018, Berkeley, USA.  
<http://www.msri.org/programs/305>

**Advances in Statistical Mechanics.**  
27–31 August 2018, Marseille Luminy, France.  
<https://conferences.cirm-math.fr/1855.html>

**XXVII International Fall Workshop on Geometry and Physics.**  
3–7 September 2018, Sevilla, Spain.  
<http://congreso.us.es/ifwgp/>

**INdAM Workshop on Poisson Geometry and Higher Structures.**  
10–14 September 2018, Rome, Italy.  
<http://www1.mat.uniroma1.it/ricerca/convegni/2018/hippo2018/>

**Homotopy algebras, deformation theory and quantization.**  
16–22 September 2018, Bedlewo, Poland.  
<http://www.impan.pl/18-homotopy>

**International Workshop on Geometric Quantization and Applications.**  
8–12 October 2018, Marseille Luminy, France.  
<https://conferences.cirm-math.fr/1867.html>

**Geometric aspects of noncommutative principal bundles.**  
15–26 October 2018, Marseille Luminy, France.  
<https://conferences.cirm-math.fr/2177.html>

## Job offers, fellowships and supports

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### Ph.D. offers

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**PhD contract in dynamic control.**  
Universidad Autónoma de Madrid (Spain)  
**Closing date: 6 July 2018.**  
<https://euraxess.ec.europa.eu/jobs/315673>

**PhD scholarship in mathematics.**  
Durham University (United Kingdom)  
**Closing date: 6 July 2018.**  
<https://www.jobs.ac.uk/job/BKS319>

**PhD positions in Mathematics.**  
Freie Universität Berlin (Germany)  
**Closing date: 9 July 2018.**  
<http://www.facetsofcomplexity.de/phd-positions/index.html>

**Doctoral scholarship.**  
Analysis/Interactions with dynamical systems and/or differential geometry.  
University of Antwerp (Belgium).  
**Closing date: 22 July 2018.**

<https://www.uantwerpen.be/en/jobs/vacancies/ap/2018bapfwetex212/>

**PhD position in mathematics.**  
Marie Curie Individual Fellowship 2018.  
BCAM (Bilbao, Spain).  
**Closing date: 12 September 2018.**  
<https://www.bizkaiaatalent.eus/en/profesionales/oportunidades-de-empleo/?id=1997>

**PhD positions in applied geometry.**  
Institute of Applied Geometry, Johannes Kepler University (Linz, Austria)  
**Closing date: Open.**  
[http://www.ag.jku.at/home\\_en.htm](http://www.ag.jku.at/home_en.htm)

**INPhINIT doctoral fellowship program.**  
Research centres in Spain  
**Closing date: Open.**  
<https://obrasociallacaixa.org/en/investigacion-y-becas/programa-de-becas-de-posgrado/inphinit/programme-description>

### High dimensional geometric algorithms.

CWI (Amsterdam, Netherlands)

Closing date: Open until filled.

<http://homepages.cwi.nl/~dadush/ad/phd-position.html>

## Postdoctoral fellowships

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### Research grants in mathematics.

University of Padua (Italy)

Closing date: 11 July 2018.

<http://www.math.unipd.it/it/news/?id=2277>

Closing date: 10 October 2018.

<https://titulus.unifi.it/albo/viewer?view=files%2F002788389-UNFICLE-d6490c75-8ecb-46c8-a627-9f6e1ff7d1a8-000.pdf>

### Postdoctoral positions in applied mathematics.

Inquiries and applications should be sent to the email [emap@fgv.br](mailto:emap@fgv.br).

Escola de Matemática Aplicada (Brazil).

Closing date: 15 July 2018.

<http://emap.fgv.br/pos-doutorado-de-excelencia>

### Postdoctoral positions in mathematics.

IAS School of Mathematics (Princeton, New Jersey, United States)

Closing date: 1 December 2018.

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

### Postdoctoral fellow in pure mathematics.

ShanghaiTech University (Shanghai, China)

Closing date: 15 July 2018.

<https://www.jobs.ac.uk/job/BJV125>

### Postdoctoral fellow in algebraic geometry.

Harvard University

Closing date: Open until filled.

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

### Postdoctoral position in geometric and nonlinear functional analysis.

Universidad Complutense de Madrid (Spain)

Closing date: 15 July 2018.

<https://oficinaeuropea.ucm.es/msca-exposiciones-of-interest-2018/details/79/32>

### Postdoctoral positions in mathematics.

Einstein Institute of Mathematics (Jerusalem, Israel)

Closing date: Open until filled.

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

### Postdoctoral position in real algebraic and analytic geometry.

Universidad Complutense de Madrid (Spain)

Closing date: 15 July 2018.

<https://oficinaeuropea.ucm.es/msca-exposiciones-of-interest-2018/details/79/37>

### Humboldt research fellowship for postdoctoral researchers.

Alexander von Humboldt Foundation

Closing date: Open.

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

### Sonata Bis funding.

Addressed to researchers wanting to establish a new research team.

Poland.

Closing date: 17 September 2018.

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

### Lisa Meitner program.

FWF Austrian Science Fund (Vienna, Austria)

Closing date: Open.

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

### Postdoctoral position in complex and symplectic geometry.

University of Florence (Italy)

### Funded postdoctoral fellowship.

Department of Mathematics and Statistics (University of Reading)

Closing date: Open.

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

## Offers for researchers

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### Associate professor in applied mathematics.

University Miguel Hernández (Elche, Spain)

Closing date: 11 July 2018.

[http://www.boe.es/diario\\_boe/txt.php?id=BOE-A-2018-7938](http://www.boe.es/diario_boe/txt.php?id=BOE-A-2018-7938)

### Lecturer in mathematics.

National University of Ireland (Galway, Ireland)

Closing date: 18 July 2018.

<https://www.jobs.ac.uk/job/BKV201>

### Instructorships in mathematics.

Ecole polytechnique fédérale de Lausanne (Switzerland)

Closing date: 30 July 2018.

<https://recruiting.epfl.ch/Vacancies/579/Description/2>

### Assistant/Associate professors in algebra, analysis or topology.

Harbin Engineering University (China)

Closing date: 31 July 2018.

<https://www.mathjobs.org/jobs/jobs/10797>

### Senior research scientist in control systems.

United Technologies Research Centre Ireland (Cork, Ireland)

Closing date: 26 August 2018.

<https://jobs.utrc.utc.com/job/cork/utrci-research-scientist-control-systems/1739/6900532>

### Scientific Director of the Basque Center for Applied Mathematics (BCAM).

BCAM (Bilbao, Spain)

Closing date: 21 September 2018.

<http://www.ikerbasque.net/sites/default/files/files/2018%20BCAM%20Scientific%20Director%20Call.pdf>

### Faculty member in mathematics.

Bard High School Early College.

Bard College (Ohio, United States).

Closing date: Open until filled.

[http://www.bard.edu/employment/descriptions/?listing\\_id=1587188](http://www.bard.edu/employment/descriptions/?listing_id=1587188)

### 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://icerm.brown.edu/simonscollaboration/open-positions/>

### Assistant professor in algebraic geometry.

Geometry and Mathematical Physics Group.

SISSA (Trieste, Italy).

Closing date: Open until filled.

<https://www.mathjobs.org/jobs/jobs/11863>

### Assistant professor in mathematics.

Brown University (Rhode Island, United States)

Closing date: Open until filled.

<https://www.mathjobs.org/jobs/jobs/10557>

## Offers for visiting researchers

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### 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/>

### Visiting researchers at AIMS.

African Institute for Mathematical Sciences.

Visits from 2 weeks or longer.

Closing date: Open.

<https://https://aims.ac.za/research/research-opportunities/>

### Research in pairs in the Mathematisches Forschungsinstitut Oberwolfach.

Mathematisches Forschungsinstitut Oberwolfach, Germany.

At least 2 and at most 4 people, stay between 2 weeks and 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.

Research in pairs (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/visiting-scholars/>

#### **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 the IMS.**

Institute of Mathematical Sciences, India.

Visits range from days to a semester or more.

**Closing date: Open.**

<https://www.imsc.res.in/visiting-mathematics>

#### **Visiting research fellow in Kent State University.**

Mathematics Department-KSU, Ohio, USA.

Visiting for scholar researchers.

**Closing date: Open.**

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

## **Financial support for research projects and conferences**

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#### **Call for applications of support for training in research.**

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](https://www.cimpa.info/en/support_for_training_in_research/call_for_applications)

#### **Propose a mini-workshop in the Mathematisches Forschungsinstitut Oberwolfach.**

Oberwolfach, Germany.

**Deadline: The deadline is the end of July.**

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

#### **Call for Projects of CIMPA Research Schools 2020.**

Centre International de Mathématiques Pures et Appliquées, France.

**Deadline: The deadline is September, 10 2018.**

<https://www.cimpa.info/node/41>

#### **Support for workshop organization.**

Banff International Research Station.

**Deadline: No precise deadline but notification with months in advance.**

<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>

### 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/>

### Mathematical and physical sciences funding.

National Science Foundation.

**Deadline: No precise deadline.**

[https://www.nsf.gov/funding/pgm\\_list.jsp?org=MPS](https://www.nsf.gov/funding/pgm_list.jsp?org=MPS)

### Financial support from CICS.

Center for International Cooperation in Science.

**Deadline: Several calls.**

<http://www.cics.tn.nic.in/>

### 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>

## Preprints and papers

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### Network's members

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Daniel Peralta-Salas and Radu Slobodeanu: *Energy minimizing Beltrami fields on Sasakian 3-manifolds.*

1806.01164

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

Eddygledson S. Gama, Esko Heinonen, Jorge H. de Lira and Francisco Martín: *Domains of complete graphs in  $M \times \mathbb{R}$ .*

1806.02414 (version 2)

[math.DG]

Viviana Alejandra Díaz and Marcela Zuccalli: *Equations derived from orbit reduction: one and two stages.*

1806.04249

[math.SG]

Eva Miranda and Cédric Oms: *Contact structures with singularities.*

1806.05638

[math.SG]

N. Román-Roy: *A Summary on Symmetries and Conserved Quantities of Autonomous Hamiltonian Systems,.*

1806.06265

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

Alexander Kruger, Marco López, Xiaoqi Yang and Jiangxing Zhu: *Hölder Error Bounds and Hölder Calmness with Applications to Convex Semi-Infinite Optimization.*

1806.06442

[math.OC]

### Network's collaborators

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Iván Contreras and Rui Loja Fernandes: *Genus Integration, Abelianization and Extended Monodromy.*

1805.12043

[math.DG]

Matteo Petrera and Yuri B. Suris: *New results on integrability of the Kahan-Hirota-Kimura discretizations.*

1805.12490

[math-ph, math.MP, math.NA, nlin.SI]

Camille Laurent-Gengoux, Sylvain Lavau and Thomas Strobl: *The universal Lie  $\infty$ -algebroid of a singular foliation.*

1806.00475

[math.DG]

Camille Laurent and Matthieu Léautaud: *Observability of the heat equation, geometric constants in control theory, and a conjecture of Luc Miller.*

1806.00969

[math.AP, math.OC]

Cheng Yang and Boris Khesin: *Averaging, symplectic reduction, and central extensions.*

1806.01755

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

Paolo Aschieri, Giovanni Landi and Chiara Paganì: *The Gauge Group of a Noncommutative Principal Bundle and Twist Deformations.*

1806.01841

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

Jih-Hsin Cheng, Taiji Marugame, Vladimir S. Matveev and Richard Montgomery: *Chains in CR geometry as geodesics of a Kropina metric.*

1806.01877

[math.DG, math.CV, math.MG]

J. M. Muñoz-Castañeda, L. M. Nieto and C. Romaniega: *Hyperspherical  $\delta$ - $\delta'$  potentials.*

1806.02150 (version 2)

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

Erik Díaz-Bautista and David J Fernández C: *Multiphoton supercoherent states.*

1806.02337

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

G. S. Silva and P. R. S. Carvalho: *Unconventional minimal subtraction and Callan-Symanzik methods for Lorentz-violating scalar field theories at all loop orders.*

1806.03126

[hep-th, cond-mat.stat-mech, math-ph, math.MP]

Marcelo Losada, Sebastian Fortín, Manuel Gadella and Federico Holik: *Dynamics of algebras in quantum unstable systems.*

1806.04997

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

Jordi-Lluís Figueras, Àlex Haro and Alejandro Luque: *Effective bounds for the measure of rotations.*

1806.05517

[math.DS]

Giulia Cavagnari, Antonio Marigonda and Benedetto Piccoli: *Generalized Dynamic Programming Principle and Sparse Mean-Field Control Problems.*

1806.06119

[math.OC]

Philip Arathoon: *A bijection between the adjoint and coadjoint orbits of a semidirect product.*

1806.08406

[math.RT, math.DG]

Benjamin Couéraud and François Gay-Balmaz: *Variational discretization of thermodynamical simple systems on Lie groups.*

1806.09897

[math.DS]

## Links of interest

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### The GMC network.

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

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

### Journal of Geometric Mechanics (JGM).

Volume 10, Issue 2, 2018.

<http://aimsciences.org/journal/1941-4889/2018/10/2>

### IMU-Net 88.

May 2018.

<https://www.mathunion.org/fileadmin/IMU/Organization/imu-net/pdfs/2018/IMU-Net-89.pdf>

### ICMAT Newsletter.

16th number. First quarter 2018.

<https://www.icmat.es/outreach/newsletter/num16>

### 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\\_webliks/catid,51/Itemid,23/](http://www.rsme.es/component/option,com_webliks/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/>

### The American Mathematical Society bookstore.

<http://www.ams.org/bookstore/whatsnew>

### 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>

**Postdocs in Mathematics worldwide.**

PhD, post doc positions, research assistant, etc.

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

**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>

**Advice for New Ph.D.'s.**

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

**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>

**American Mathematical Society Prizes and Awards.**

<https://www.ams.org/profession/prizes-awards/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 [gmcnet@ull.es](mailto:gmcnet@ull.es)