

# GMC Network Infosheet

December 2019



## Geometry, Mechanics and Control Network Infosheet

December 2019

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## Network's activities

**Special Session "Geometry, Mechanics, Control and its Interactions" at VI Latin American Congress of Mathematicians (CLAM 2020).**

20–24 July 2020, Montevideo, Uruguay.

<https://clam2020.cmat.edu.uy/>

## Outstanding events

**Special Session "Geometric Mechanics, Dynamics and Control" in honor of Anthony Bloch (XIII AIMS Conference on Dynamical Systems).**

6–9 June 2020, Atlanta, USA.

<https://sites.google.com/view/blochfest/home>

**"Geometry, Mechanics, and Dynamics". Conference in Honor of the 70th Birthday of Tudor Ratiu.**

20–24 July 2020, Lausanne, Switzerland.

<https://cib.epfl.ch/events/1505>

## Other conferences

**Geometry from the Quantum.**

13–17 January 2020, Santa Barbara, USA.

<https://www.kitp.ucsb.edu/activities/qgravity-c20>

**9th International Conference on Quantum Simulation and Quantum Walks.**

20–24 January 2020, Marseille, France.

<https://conferences.cirm-math.fr/2161.html>

**Connections for Women: Quantum Symmetries.**

23–24 January 2020, Berkeley, USA.

<http://www.msri.org/workshops/905>

**Symmetry and Geometry on the Southern Great Plains.**

24–26 January 2020, Oklahoma, USA.

[https://math.ou.edu/~mjablonski/SGSGP\\_2020/](https://math.ou.edu/~mjablonski/SGSGP_2020/)

**Introductory Workshop: Quantum Symmetries.**

27–31 January 2020, Berkeley, USA.

<http://www.msri.org/workshops/905>

**Symplectic Geometry, Contact Geometry and Interactions.**

6–8 February 2020, Antwerpen, Belgium.

<https://tinyurl.com/y67nzdke>

**Group Actions in Aritmetic and Geometry (CIMPA School).**

17–28 February 2020, Yogyakarta, Indonesia.  
<http://www.rnta.eu/Yogyakarta2020/>

**Implicit Function Theorems in Geometry and Dynamics (Winter School).**

19–22 February 2020, Ebsdorfergrund, Germany.  
<https://tinyurl.com/vndt7vg>

**Dynamical aspects of pseudo-Riemannian geometry.**

2–6 March 2020, Braga, Portugal.  
<https://cmup.fc.up.pt/Pseudo-Riemannian-Geometry/>

**Tensor categories and topological quantum field theories.**

16–20 March 2020, Berkeley, USA.  
<http://www.msri.org/workshops/917>

**Geometric Variational Problems.**

23–27 March 2020, Ulm, Germany.  
<https://tinyurl.com/uxtvgok>

**New Perspectives on Sys Mirror Symmetry.**

30 March–1st April 2020, London, England.  
<https://sites.google.com/view/imperial-syz>

**Workshop on classical and quantum aspects of symplectic geometry.**

6–9 April 2020, Nantes, France.  
<https://tinyurl.com/vje4msw>

**Regularity theory for elliptic and parabolic systems and problems in continuum mechanics.**

6–9 May 2020, Telč, Czech Republic.  
<https://tinyurl.com/yyglw73l>

**Quantum Topology and Geometry.**

11 – 15 May 2020, Luminy, France.  
<https://conferences.cirm-math.fr/2160.html>

**Intensive Period on Poisson Geometry and Mathematical Physics.**

18 May–17 July 2020, Fisciano, Italy.  
<http://www.poisson.unisa.it>

**Interactions of gauge theory with contact and symplectic topology in dimensions 3 and 4.**

07–12 June 2020, Banff, Canada.  
<http://www.birs.ca/events/2020/5-day-workshops/20w5088>

**IX School on Geometry and Physics.**

22–26 June 2020, Białowieża, Poland.  
<http://wgmp.uwb.edu.pl/index.html>

**Dynamics, SCV and CR geometry.**

15–19 June 2020, Nice, France.  
<https://math.unice.fr/~stolo/conf/CRDyn20.html>

**Digital Geometry and Discrete Variational Calculus.**

22–26 June 2020, Luminy, France.  
<https://conferences.cirm-math.fr/2168.html>

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

28 June–04 July 2020, Białowieża, Poland.  
<http://wgmp.uwb.edu.pl/index.html>

**Geometry Festival.**

29 June–03 July 2020, Veszprém, Hungary.  
<https://geofest.mik.uni-pannon.hu/index.php>

## Job offers, fellowships and supports

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### Ph.D. offers

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**PhD positions in Pure Mathematics.**

KU Leuven, Leuven, Belgium  
**Closing date: 8 January 2020.**  
<https://www.kuleuven.be/personeel/jobsite/jobs/55445636?hl=en&lang=en>

**PhD position.**

Georg-August-Universität Göttingen, Göttingen, Germany  
**Closing date: 11 January 2020.**

<http://www.uni-goettingen.de/en/2794.html?cid=100625>

**‘La Caixa’ PhD positions.**

ICMAT, Madrid, Spain  
**Closing date: 4 February 2020.**  
[https://www.icmat.es/resources/employment/INPhINIT\\_La-Caixa](https://www.icmat.es/resources/employment/INPhINIT_La-Caixa)

**PhD Candidate in Applied Mathematics.**

Radboud University, Nijmegen, Netherlands

**Closing date: 9 February 2020.**

<https://www.ru.nl/english/working-at/vacature/details-vacature/?recid=1080677>

#### **PhD Positions in Mathematics.**

Universities of Coimbra and Porto, Portugal

**Closing date: 15 February 2020.**

[http://www.mat.uc.pt/phd\\_prog/default.php](http://www.mat.uc.pt/phd_prog/default.php)

#### **PhD positions in mathematics.**

University of Luxembourg, Luxembourg

**Closing date: 1 March 2020.**

<http://recruitment.uni.lu/en/details.html?nPostingId=25556&nPostingTargetId=41799>

#### **PhD positions.**

TU Delft, Delft, The Netherlands

**Closing date: Open until filled.**

<https://tinyurl.com/yyzhqhfr>

### **Postdoctoral fellowships**

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#### **Postdoctoral Fellowship in Representation Theory.**

Laboratoire de Mathématiques Blaise Pascal, Clermont-Ferrand, France

**Closing date: 15 January 2020.**

<https://tinyurl.com/tq286b4>

#### **Postdoc position in optimal control of PDEs.**

University of Graz, Graz, Austria

**Closing date: 15 January 2020.**

<https://mathematik.uni-graz.at/index.php?id=39381>

#### **Postdoctoral Fellows in Mathematics.**

National Center for Theoretical Sciences, Taiwan

**Closing date: 28 February 2020.**

[http://www.ncts.ntu.edu.tw/news\\_detail.php?id=75](http://www.ncts.ntu.edu.tw/news_detail.php?id=75)

#### **Postdoctoral position in Mathematical Physics.**

Czech Academy of Sciences, Rez, Czech Republic

**Closing date: 29 February 2020.**

<https://euro-math-soc.eu/job/two-year-postdoctoral-position>

#### **Postdoctoral positions in geometry.**

Heidelberg University, Germany

**Closing date: Open until filled.**

<https://www.mathjobs.org/jobs/jobs/12713>

#### **Postdoctoral fellowships in algebraic geometry and mathematical sciences.**

Harvard University, Massachusetts, United States

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

University of Luxembourg, Luxembourg

**Closing date: Open until filled.**

<https://tinyurl.com/y6731flx>

#### **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>

#### **Doctoral candidate in applied algebraic geometry.**

Aalto University, Espoo, Finland

**Closing date: Open until filled.**

<https://tinyurl.com/y298aqpp>

**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.icerb.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

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### **Lecturer/Senior Lecturer/ Associate Professor in Mathematical Physics.**

University of Bristol, Bristol, United Kingdom

**Closing date: 6 January 2020.**

[https://www.researchgate.net/job/936603\\_Lecturer\\_Senior\\_Lecturer\\_Associate\\_Professor\\_in\\_Mathematical\\_Physics](https://www.researchgate.net/job/936603_Lecturer_Senior_Lecturer_Associate_Professor_in_Mathematical_Physics)

### **Associate Professor in Mathematical Physics.**

Mathematics Department of Radboud University, Nijmegen, The Netherlands

**Closing date: 6 January 2020.**

<https://www.ru.nl/english/working-at/vacature/details-vacature/?recid=1072081>

### **Professor in Applied Mathematics.**

Karlstad University, Karlstad, Sweden

**Closing date: 15 January 2020.**

<https://euro-math-soc.eu/job/professor-mathematics-focus-applied-mathematics>

### **Differential geometry expert.**

Barcelona, Spain.

Mail to: [mcastellano@talentocientifico.com](mailto:mcastellano@talentocientifico.com).

**Closing date: Open until filled.**

### **Several Tenure Track positions.**

TU Delft, Delft, The Netherlands

**Closing date: Open until filled.**

<https://www.tudelft.nl/en/3me/departments/deft-center-for-systems-and-control/about-dcsc/vacancies/>

### **Assistant professor in Mathematics.**

Deusto University, Bilbao, Spain

**Closing date: Open until filled.**

<https://deusto.talentclue.com/es/node/38171378/4590/modal>

### **Mathematics adjunct instructors.**

Portland State University, Oregon, United States

**Closing date: Open until filled.**

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

### **Tenure track position in geometry.**

McMaster University, Ontario, Canada

**Closing date: Open until filled.**

<https://www.mathjobs.org/jobs/jobs/12720>

### **Tenure track positions in Mathematics.**

University of Texas at Dallas, United States

**Closing date: Open until filled.**

<https://jobs.utdallas.edu/postings/11339>

### **Assistant professor in Mathematics.**

Embry-Riddle Aeronautical University at Prescott, Arizona, United States

**Closing date: Open until filled.**

<https://www.mathjobs.org/jobs/jobs/13189>

## Offers for visiting researchers

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### **ICTP-INDAM Research in Pairs.**

International Centre for Theoretical Physics and the Istituto Nazionale di Alta Matematica.

Projects between mathematicians from developing countries and INDAM or ICTP members.

**Closing date: 12 January 2020.**

<https://tinyurl.com/t2sd9t8>

### **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/>

### **Simons Visiting Professors at Mathematisches Forschungsinstitut Oberwolfach.**

Oberwolfach, Germany.

Distinguished junior or senior scientists from outside Europe up to two weeks.

**Closing date: Open.**

<https://www.mfo.de/scientific-program/meetings/simons-visiting-professors>

### **Research in pairs at Mathematisches Forschungsinstitut Oberwolfach.**

Oberwolfach, Germany.

Between 2 and 4 people, from 2 weeks to 3 months.

**Closing date: Six months before planned stay.**

<https://tinyurl.com/t7dfjel>

### **Focused research groups in Banff, Canada.**

Banff International Research Station, Canada.

Up to 8 researchers for periods of 1 to 2 weeks.

**Closing date: Minimum 4 months before 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: Minimum 4 months before 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.  
**Closing date: Open all year.**  
<https://tinyurl.com/y5vnhxj6>

**Research in pairs program: Centro Internazionale per la Ricerca Matematica.**

Fondazione Bruno Kessler, Trento, Italy.  
2-3 people 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://tinyurl.com/un8bd4t>

**Small team visiting the Centre de Recerca Matemàtica.**

CRM, 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**

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**European Researchers' Night 2020.**

European Commission, Marie Skłodowska-Curie Actions.  
**Deadline: January, 9.**  
<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/msca-night-2020>

**Innovative Training Networks 2020.**

European Commission, Marie Skłodowska-Curie Actions.  
**Deadline: January, 14.**  
<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/msca-itn-2020>

**Thematic Programs at MSRI.**

Mathematical Sciences Research Institute, Berkeley, United States.  
**Deadline: March 1st, October 15 and December 1st. Three years ahead.**  
<http://tinyurl.com/msri-progprop>

**Hot Topics Workshop at MSRI.**

Mathematical Sciences Research Institute, Berkeley, United States.  
**Deadline: March 1st, October 15 and December 1st.**

<http://tinyurl.com/msri-htw>

**Summer Graduate Schools at MSRI.**

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

**Short-term exchanges of research and business staff - Research and Innovation Staff Exchange (RISE) 2020.**

European Commission, Marie Skłodowska-Curie Actions.  
**Deadline: April, 28.**  
[https://ec.europa.eu/research/mariecurieactions/actions/get-funding/short-term-exchanges-research-and-business-staff-research-and-innovation-staff\\_en](https://ec.europa.eu/research/mariecurieactions/actions/get-funding/short-term-exchanges-research-and-business-staff-research-and-innovation-staff_en)

**Support for workshop organization.**

Banff International Research Station.  
**Deadline: No precise deadline.**  
<http://www.birs.ca/programs/general-program-descriptions>

**Proposal of 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, United States of America.

**Deadline: No precise deadline.**

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

### Hosting a workshop at AIMS South Africa.

Contributions for workshops about AIMS's research focus areas.

**Deadline: No precise deadline.**

<https://tinyurl.com/y8p3t34j>

### International Mathematical Union - Conference support program.

For conferences in developing or economically disadvantaged countries.

**Deadline: Several calls.**

<https://tinyurl.com/yycetfcz>

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## Preprints and papers

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### Network's members

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Paulo Antunes and Joana M. Nunes da Costa: *Split Courant algebroids as  $L_\infty$ -structures.*

1912.09791

[math.DG]

Marco Castrillón López and Miguel Ángel Berbel: *Reduction (by stages) in the whole Lagrange-Poincaré category.*

1912.10763

[math.DG, math.DS]

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### Network's collaborators

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Xiaoming Duan, Mishel George, Rushabh Patel and Francesco Bullo: *Robotic Surveillance Based on the Meeting Time of Random Walks.*

1912.02693

[cs.RO, math.OC]

Boris Khesin and Serge Tabachnikov: *Fun Problems in Geometry and Beyond.*

1912.05740

[math.HO, math.DG]

Bozidar Jovanovic, Tijana Sukilovic and Srdjan Vukmirovic: *Integrable systems associated to the filtrations of Lie algebras and almost multiplicity free subgroups of compact Lie groups.*

1912.03199

[nlin.SI, math.GR, math.SG]

David Gómez-Ullate and Robert Milson: *Lectures on exceptional orthogonal polynomials and rational solutions to Painlevé equations.*

1912.07597

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

Andreas Fring and Samuel Whittington:  *$N$ -Extended Lorentzian Kac-Moody algebras.*

1912.04225

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

Richard Cushman and Jędrzej Sniatycki: *Differentiable spaces that are subcartesian.*

1912.07472

[math.DG]

Camille Laurent-Gengoux and Leonid Ryvkin: *The holonomy of a singular leaf.*

1912.05286

[math.DG]

Yang Lu and Minghui Zhu: *On privacy preserving data release of linear dynamic networks.*

1912.07641

[math.OC, cs.CR]

Tara Holm and Liat Kessler: *Equivariant cohomology does not distinguish Hamiltonian  $S^1$ -manifolds.*

1912.05647

[math.SG]

Yacine Chitour, Nicola Guglielmi, Mario Sigalotti and Vladimir Protasov: *Switching systems with dwell time: computation of the maximal Lyapunov exponent.*

1912.10214

[math.DS, cs.NA, math.NA]

Marcelo Epstein: *Reflections on the structural and constitutive approaches to the theory of defects.*

1912.10560  
[math-ph, math.MP]

N. Aizawa, K. Amakawa and S. Doi:  $\mathbb{Z}_2^n$ -Graded

*extensions of supersymmetric quantum mechanics  
via Clifford algebras.*

1912.11195  
[math-ph, hep-th, math.MP]

## Network's news

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### PhD Thesis.

*Geometric and numerical aspects of mechanical systems with magnetic terms.*

Author: María Emma Eyrea Irazú.

Advisors: Leonardo Colombo and Marcela Zuc-

calli.

Date: 18 December 2019.

[https://drive.google.com/file/d/1nZUKAeo3Ey2baiV\\_TMt6nDAdsvM00p2W/view?usp=sharing](https://drive.google.com/file/d/1nZUKAeo3Ey2baiV_TMt6nDAdsvM00p2W/view?usp=sharing)

## Links of interest

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### The Geometry, Mechanics and Control Network.

International, spanish based research network.

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

### Journal of Geometric Mechanics (JGM).

Volume 11, Issue 4, 2019.

<https://www.aims sciences.org/journal/1941-4889/2019/11/4>

### International Mathematical Union-Net 98.

November 2019.

<https://www.mathunion.org/fileadmin/IMU/Organizati on/imu-net/pdfs/2019/IMU-Net-98.pdf>

### ICMAT Newsletter.

18th number. First semester 2019.

<https://www.icmat.es/outreach/newsletter/num18>

### New AIMS Journal.

New open access journal.

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

### Euraxess Spain.

Researchers in motion.

<https://www.euraxess.es/spain/science-spain>

### European Research Council.

Supporting top researchers from anywhere

<https://erc.europa.eu/>

### International Cooperation "Open to the World".

Research and Innovation, European Commission

<https://tinyurl.com/y46tkeeq>

### International Center of Pure and Applied Mathematics (CIMPA).

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

### Reports@SCM journal.

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

### Mathematics in Europe.

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

### 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.

<http://academicpositions.eu/>

### Academic jobs in Mathematics in the UK.

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

### Academic jobs in Mathematics worldwide.

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

### Academic jobs in Mathematics in Spain.

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

### Academic jobs in Mathematics.

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

### SIAM Activity Group on Control and Systems Theory Prize.

<https://tinyurl.com/ydcpzmv7>

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

<https://tinyurl.com/ycjpvz6>

**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>

**Mathematical Association of America Awards.**

<https://www.maa.org/programs-and-communities/member-communities/maa-awards/writing-awards>

**Association for Women in Mathematics Awards.**

<https://awm-math.org/awards/>

**IEEE Control Systems Society Awards.**

<http://ieeecss.org/awards/awards-program>

**Royal Society of London Premier Medals and Awards.**

<https://royalsociety.org/grants-schemes-awards/awards/premier-awards/>

**London Mathematical Society Prizes.**

<https://www.lms.ac.uk/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](mailto:gmactivities@gmail.com)**