

Geometry, Mechanics and Control Network Infosheet

#### August 2019

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# GMC Network Infosheet

### Network's activities

14th International Young Researchers Workshop on Geometry, Mechanics and Control. 16-18 December 2019, Göttingen, Germany. https://www.uni-goettingen.de/en/607463.html

### **Outstanding events**

# XXVIII International Fall Workshop on Geometry and Physics.

2-6 September 2019, Madrid, Spain. https://www.icmat.es/congresos/2019/IFWGP/

Women in Geometry and Topology. 25-27 September 2019, Barcelona, Spain. http://tinyurl.com/yywkgo48

### Other conferences

7th International Workshop on New Challenges in Quantum Mechanics: Integrability and Supersymmetry.

1-7 September 2019, Benasque, Spain. http://benasque.org/2019qmis/

#### Differential Geometry and its Applications. 2-6 September 2019, Hradec Králové, Czech Republic. http://dga2019.uhk.cz/

Conference on Geometry and Physics. 2-6 September 2019, Bucharest, Romania. http://events.theory.nipne.ro/gap/index.php/conference

### Geometry and Strings 2019.

3-6 September 2019, Oxford, United Kingdom. https://sites.google.com/view/geometryandstrings2019/home

11th IFAC Symposium on Nonlinear Control Systems. 4-6 September 2019, Vienna, Austria. http://www.mechatronicsnolcos2019.org/

Summer School on Control Theory in Mechanics. 8-14 September 2019, Quiberon, France. http://tcm.ida.upmc.fr/

Many-body Quantum Systems. 8-14 September 2019, Oberwolfach, Germany. https://www.mfo.de/www/schedule/2019/all

#### Joint Seminar on Geometric Analysis.

13-14 September 2019, Luminy, France. https://conferences.cirm-math.fr/2345.html

### Large Scale Stochastic Dynamics.

15-21 September 2019, Oberwolfach, Germany. https://www.mfo.de/occasion/1938/www\_view

### Quantum Flag Manifolds in Prague.

16-20 September 2019, Prague, Czech Republic. https://tinyurl.com/y273rfel

#### International conference on Geometric Analysis. 22–28 September 2019, Novosibirsk, Russia. https://tinyurl.com/yyscze4c

# Challenges in Theoretical High-Energy Physics.

23-27 September 2019, Stockholm, Sweden. https://tinyurl.com/y5dw8e5c

# Problems of Theoretical and Mathematical Physics.

24-26 September 2019, Kyiv, Ukraine. https://bogolyubov2019.bitp.kiev.ua/

### IMAC Math-Quantum Day.

27 September 2019, Castellón, Spain. http://www.imac.uji.es/QuantumMath\_Day.html

# Dirac operators in differential geometry and global analysis.

6-12 October 2019, Bedlewo, Poland. http://http://wmii.uwm.edu.pl/dirac/

# 4th IEEE Colombian Conference on Automatic Control.

15-18 October 2019, Medellin, Colombia. http://www.ieeeccac2019.com/

### Dynamics, Geometry and Combinatorics.

21-25 October 2019, Lausanne, Switzerland. https://bernoulli.epfl.ch/events/1489

#### Modern Problems of Mathematics and Mechanics.

23-25 October 2019, Baku, Azerbaijan. https://imm60.imm.az/

Algebraic and Geometrical Methods in String Theory.

28 October–8 November 2019, San Martín, Argentina.

http://icas.unsam.edu.ar/hub/cimpa2019/

# Dirac operators on domains with magnetic fields.

28 October-8 November 2019, Luminy, France. https://conferences.cirm-math.fr/2240.html

# Workshop on Contact and Poisson Geometry.

31 October-2 November 2019, Timisoara, Romania. https://sites.google.com/view/wcpg

# Workshop on Differential Geometry and Nonassociative Algebras.

12-15 November 2019, Luminy, France. https://conferences.cirm-math.fr/2076.html

#### Workshop on Higher Structures in Geometry and Physics.

18-22 November 2019, Montreal, Canada. https://tinyurl.com/y6rvpcpb

# IX Conference on Quantum Foundations. 27–29 November 2019, Córdoba, Argentina.

https://sites.google.com/view/ixjfc

#### Symplectic Geometry with Algebraic Techniques with applications to Mathematical Physics.

10-13 December 2019, Madrid, Spain. https://www.icmat.es/RT/2019/CTIGMINS/gesta.php

# Supergeometry, supersymmetry and quantization.

16–19 December 2019, Luxembourg, Luxembourg.

http://math.uni.lu/SuperWork/SuperConferenc
e.html

#### Geometry from the Quantum.

13-17 Januay 2020, Santa Barbara, USA. https://www.kitp.ucsb.edu/activities/qgravi ty-c20

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

20-24 Januay 2020, Marseille, France. https://conferences.cirm-math.fr/2161.html

### Ph.D. offers

#### Ph.D. scholarships in Argentina.

Buenos Aires, Argentina Closing date: 13 September 2019. https://www.gba.gob.ar/cic/becas\_doctorales

#### Ph.D. positions in Applied Mathematics.

Department of Mathematics, FAU Erlangen, Erlangen, Germany Closing date: 30 September 2019. https://tinyurl.com/yy4rp67j

#### PhD Position.

University of Fribourg, Fribourg, Switzerland Closing date: 30 September 2019. https://euro-math-soc.eu/system/files/job-an nouncements/PhD-UniFr-WengerGroup.pdf

#### 12 PhD Positions in Climate Forecasting.

Centre de Recerca Matemàtica Closing date: 8 October 2019. https://www.mathjobs.org/jobs/jobs/13814

#### Doctoral Researcher in optimal transport.

Department of Mathematics, Technische Universität München

#### Closing date: 31 December 2019.

https://euro-math-soc.eu/system/files/job-an nouncements/Schmitzer\_Doc.pdf

#### Postdoctoral fellowships

#### Marie Sklodowska-Curie Individual Fellowships.

European Commission Closing date: 11 September 2019. https://tinyurl.com/y362e3tg

### Postdoctoral fellowships in Applied Mathematics.

Basque Center for Applied Mathematics, Bilbao, Spain

Closing date: 13 September 2019. http://www.bcamath.org/en/research/job

### Postdoc positions in Chile.

#### Chile

Closing date: 24 September 2019.

https://www.conicyt.cl/fondecyt/2018/11/15/co ncurso-postdoctorado-2020/

#### PhD positions in mathematics.

University of Luxembourg, Luxembourg Closing date: 1 March 2020. http://recruitment.uni.lu/en/details.html?nPo stingId=25556&nPostingTargetId=41799

#### PhD positions.

TU Delft, Delft, The Netherlands Closing date: Open until filled. https://tinyurl.com/yyzhqhfr

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

University of Luxembourg, Luxembourg Closing date: Open until filled. https://tinyurl.com/y673lflx

#### **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-positi on-0

# Doctoral candidate in applied algebraic geometry.

Aalto University, Espoo, Finland Closing date: Open until filled. https://tinyurl.com/y298aqpp

Postdoc positions in Applied Mathematics. Department of Mathematics, FAU Erlangen Closing date: 30 September 2019. https://tinyurl.com/yy4rp67j

#### 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 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.icerm.brown.edu/open-po sitions/

Humboldt research fellowship for postdoctoral researchers. Alexander von Humboldt Foundation Closing date: Open.

#### Offers for researchers

Faculty Position in Algebra. Department of Mathematics, University of Trento, Trento, Italy Closing date: 12 September 2019. https://web.unitn.it/files/download/59381/ba ndo\_inglese\_dm\_mat-02.pdf

#### **ERC-POC** Proof of Concept Grant.

European Commission Closing date: 19 September 2019. https://tinyurl.com/ybjgm36k

Tenure Track position in Mathematical Quantum Physics. Korteweg-de Vries Institute for Mathematics, Amsterdam, Netherlands Closing date: 15 October 2019. https://tinyurl.com/y5rmwk4n

#### Faculty Position in Mathematics. EPFL, Lausanne, Switzerland Closing date: 1 November 2019. https://facultyrecruiting.epfl.ch/auth/Apply

/0/Position/18186242/Step/1

Several Tenure Track positions. TU Delft, Delft, The Netherlands Closing date: Open until filled.

#### Offers for visiting researchers

Simon's fellows in Mathematics and Physical Sciences. Simon's Foundation, New York, USA. Grants to institutes and researchers. https://www.humboldt-foundation.de/web/humbol dt-fellowship-postdoc.html

#### Lisa Meitner program.

FWF Austrian Science Fund, Vienna, Austria Closing date: Open. https://www.fwf.ac.at/en/research-funding/ap plication/

#### Funded postdoctoral fellowship.

University of Reading, United Kingdom Closing date: Open.

https://www.reading.ac.uk/maths-and-stats/Jo bsAndFellowships/maths-fellowships.aspx

https://www.tudelft.nl/en/3me/departments/de lft-center-for-systems-and-control/about-dc sc/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

# Closing date: 25 September to 3 October 2019 depending the grant.

https://www.simonsfoundation.org/funding-oppo
rtunities

#### 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/visiti ng-research-fellows/

# Research in pairs in the Mathematisches Forschunginstitut Oberwolfach.

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

Closing date: Six months before planned stay. http://www.mfo.de/for-guest-researchers/appl y-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-programdescriptions

#### 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-programdescriptions

#### Centre International de Rencontres Mathematiques (CIRM).

CIRM, Marseille, France. 2 to 3 researchers for 1 to 2 weeks.

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 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/visitingscho lars/

# 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

#### Call for projects CIMPA Schools 2021.

Centre International de Mathématiques Pures et Appliquées, France. Deadline: 9 September 2019.

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

### Marie Sklodowska–Curie Co–Funding of regional, national and international programmes.

European Commission. Deadline: 26 September 2019. https://tinyurl.com/y9nh7ybt

#### Thematic Programs at MSRI.

Mathematical Sciences Research Institute, Berkeley, United States.

Deadline: October 15, December 1st and March 1st. Three years ahead.

http://tinyurl.com/msri-progprop

Hot Topics Workshop at MSRI. Mathematical Sciences Research Institute, Berkeley, United States. Deadline: October 15, December 1st and March 1st.. http://tinyurl.com/msri-htw

#### National Science Foundation, United States of Summer Graduate Schools at MSRI. Mathematical Sciences Research Institute, Berke-America. ley, United States. Deadline: No precise deadline. Deadline: October 15, December 1st and March https://www.nsf.gov/funding/pgm\_list.jsp?org= 1st.. MPS http://tinyurl.com/msri-sgs Support for workshop organization. Hosting a workshop at AIMS South Africa. Banff International Research Station. Contributions for workshops about AIMS's re-Deadline: No precise deadline. search focus areas. http://www.birs.ca/programs/general-program-Deadline: No precise deadline. descriptions https://tinyurl.com/y8p3t34j **Propose a workshop in the Mathematisches** Forschunginstitut Oberwolfach. International Mathematical Union-Oberwolfach, Germany. Conference support program. Deadline: Open. For conferences in developing or economically dishttps://www.mfo.de/scientific-programme/meet advantaged countries. ings/workshop Deadline: Several calls. Mathematical and physical sciences funhttp://www.mathunion.org/cdc/grants/conferen ding. ce-support-program/

### **Books**

#### Network's member's book

Integrability, Supersymmetry and Coherent States. A Volume in Honour of Professor Veronique Hussin. Authors: S . Kuru, J. Negro and L.M. Nieto (Eds.). Publisher: CRM Series in Mathematical Physics, Springer. Date: 2019. https://link.springer.com/book/10.1007/978-3-030-20087-9

Manuel Lainz, Cristina Sardón and Alan Weinstein: *Plasma in monopole background is not* 

[math-ph, math.MP, math.SG, physics.plasm-ph]

### Preprints and papers

#### Network's members

Florio M. Ciaglia, Alberto Ibort and Giuseppe Marmo: On the notion of composite system.

1908.02976

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

#### Network's collaborators

Rong Tang, Chengming Bai, Li Guo and Yunhe Sheng: Homotopy Rota-Baxter operators, homotopy O-operators and homotopy post-Lie algebras. 1907.13504

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

Rui Loja Fernandes and Ivan Struchiner: The Global Solutions to Cartan's Realization Problem. 1907.13614

### [math.DG]

1908.03986

twisted Poisson.

Supriyo Dutta and Partha Guha: Elements of Generalized Tsallis Relative Entropy in Classical Information Theory.
1908.01696
[math-ph, cs.IT, math.IT, math.MP]

Oscar Macia and Andrew Swann: The c-map on groups.

1908.01736 [math.DG]

Jeffrey R. Peters, Amit Surana, Grant S. Taylor, Terry S. Turpin and Francesco Bullo: UAV Surveillance Under Visibility and Dwell-Time Constraints: A Sampling-Based Approach. 1908.05347 [eess.SY, cs.MA, cs.RO, cs.SY, math.OC]

Florio M. Ciaglia, Fabio Di Cosmo, Armando Figueroa, Vladimir I. Man'ko, Giuseppe Marmo, Luca Schiavone, Franco Ventriglia and Patrizia Vitale: Nonlinear Dynamics from Linear Quantum Evolutions. 1908.03699 [quant-ph, math-ph, math.MP]

Stephen C. Anco, M. L. Gandarias and Elena Recio: Line solitons and conservation laws of a modified KP equation with p-power nonlinearities.
1908.03962
[math-ph, math.MP, nlin.SI]

### Links of interest

# The Geometry, Mechanics and Control Network.

International, spanish based research network.
http://gmcnet.webs.ull.es/

#### Journal of Geometric Mechanics (JGM).

Volume 11, Issue 2, 2019. https://aimsciences.org/journal/1941-4889/ 2019/11/2

#### International Mathematical Union-Net 96. July 2019.

https://www.mathunion.org/fileadmin/IMU/Organ ization/imu-net/pdfs/2019/IMU-Net-96.pdf

#### ICMAT Newsletter.

18th number. First semester 2019. https://www.icmat.es/outreach/newsletter/nu m18

#### 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 A. Balmaseda, F. Di Cosmo and J. M. Pérez-Pardo: On Z-invariant self-adjoint extensions of the Laplacian on quantum circuits.
1908.04214
[math-ph, math.MP]

Roger Casals, Dishant M. Pancholi and Francisco Presas: *The Legendrian Whitney trick*. 1908.04828 [math.SG]

Florio M. Ciaglia, Giuseppe Marmo and Luca
Schiavone: From Classical Trajectories to Quantum Commutation Relations.
1908.06790
[math-ph, math.MP, quant-ph]

Marcelo Epstein: Hilbert bodies as quantumclassical continua. 1908.09069 [quant-ph, math-ph, math.MP, 53Z05]

#### 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-tecn ologia/convocatorias

Academic jobs in Mathematics. http://www.indeed.com/q-Postdoctoral-jobs.htm 1

SIAM Activity Group on Control and Systems Theory Prize. https://tinyurl.com/ydcpznv7

SIAM Activity Group on Control and Systems Theory Best SICON Paper Prize. https://tinyurl.com/ycjpzvz6

International Mathematical Union Awards and Prizes. https://www.mathunion.org/imu-awards/imu-awar

ds-prizes-and-special-lecture

Other Prizes of International Mathematical Union.

https://www.mathunion.org/imu-awards/otherprizes

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/

Royal Society of London Premier Medals and Awards. https://royalsociety.org/grants-schemes-awar

ds/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&t woid=77

European Mathematical Society Prizes. http://euro-math-soc.eu/prizes-european-math ematical-society

Fermat Prize.
https://www.math.univ-toulouse.fr/spip.php?rub
rique107&lang=en

Society for Industrial and Applied Mathematics Prizes. https://www.siam.org/prizes/

Noether Lectures Award. https://sites.google.com/site/awmmath/progra ms/noether-lectures

The Royal Society Grants. https://royalsociety.org/grants/

The Royal Society's medals and award. https://royalsociety.org/grants-schemes-awar ds/awards/nominations/

NOTE: If you want to include information in this info-sheet, please send it to gmcactivities@gmail.com