



*Geometry,  
Mechanics  
and Control  
Network  
Infosheet*

April 2023

Editors: Miguel Berbel, Viviana  
Díaz, Rodrigo Sato

**Contents**

---

Outstanding event	1
Other conferences	1
Online Courses	3
Virtual seminars	3
Job offers, fellowships and supports	4
Ph.D. offers . . . . .	4
Postdoctoral fellowships . .	4
Offers for researchers . . . .	5
Offers for visiting researchers	5
Financial support for re- search projects and conferences . . . . .	6
Interesting publication	6
Preprints	6
Network's members . . . . .	6
Network's collaborators . .	7
Links of interest	8

---

**Outstanding event**

---

**XV International ICMAT Summer School on Geometry, Dynamics and Field theory.**

10–11 July 2023, Miraflores de la Sierra, Madrid (Spain).

**Dynamical Systems, Mechanics and Control: A workshop in honor to Anthony Bloch.**

12–14 July 2023, Miraflores de la Sierra, Madrid (Spain).

**XXXI International Fall Workshop on Geometry and Physics.**

4–8 September 2023, Santiago de Compostela, Spain.

**Other conferences**

---

**9th Meeting on Systems and Control Theory.**

3–5 May 2023, Waterloo, Canada.

**Control Theory and Inverse Problems.**

8–10 May 2023, Monastir, Tunisia.

**School on Conformal Symplectic Dynamics and Related Fields.**

8–12 May 2023, Marseille, France.

**Geometry of Subgroups.**

15–26 May 2023, Montréal, Canada.

**Sixth International Conference on Physics, Mathematics and Statistics.**

20–22 May 2023, Sanya, China.

**Mathematical Physics in Quantum Technology: From Finite to Infinite Dimensions.**

22–26 May 2023, Edinburgh, United Kingdom.

**The Geometry, Algebra, and Physics of Higgs Bundles.**

28 May–2 June 2023, Banff, Canada.

**Interactions between Algebraic Topology and Geometric Group Theory.**

28 May–2 June 2023, Oaxaca, Mexico.

**Poisson meeting in La Rochelle. Dedicated to the 60th birthday of Pol Vanhaecke.**

29 May–1 June 2023, La Rochelle, France.

**Interactions between Mathematics and Physics.**

29 May–1 June 2023, Rome, Italy.

**Groups and Dynamics in Geometry.**

29 May–2 June 2023, Ascona, Switzerland.

**Great Lakes Mathematical Physics Meeting.**

9–11 June 2023, Oberlin, USA.

**Geometry, Topology and Control System Design.**

11–16 June 2023, Banff, Canada.

**Colloquium on Finsler Geometry and its Applications.**

11–16 June 2023, Debrecen, Hungary.

**Machine Learning for Science: Mathematics at the Interface of Data-driven and Mechanistic Modelling.**

11–17 June 2023, Oberwolfach, Germany.

**Colloquium on Finsler Geometry and its Applications.**

12 June–16 July 2023, Debrecen, Hungary.

**Emergent Geometries from Strings and Quantum Fields.**

12 June–28 July 2023, Firenze, Italy.

**Analysis and Mathematical Physics.**

19–21 June 2023, Stockholm, Sweden.

**Sub-Riemannian Geometry and Beyond, III.**

19–23 June 2023, Pisa, Italy.

**Workshop BRIDGES: Specials geometries and gauge theories.**

19–23 June 2023, Pau, France.

**15th International Workshop on Lie Theory and Its Applications in Physics.**

19–25 June 2023, Varna, Bulgaria.

**4th International Conference on Symmetry.**

21–23 June 2023, Barcelona, Spain.

**Correlations in Mathematical Quantum Mechanics.**

21–23 June 2023, Copenhagen, Denmark.

**Interplay between Geometric Analysis and Discrete Geometry.**

25–30 June 2023, Oaxaca, Mexico.

**Geometry and analysis of groups and manifolds.**

26–30 June 2023, Pisa, Italy.

**“Dynamics, bifurcations and numerics”, dedicated to the memory of Claudia Wulff.**

4–7 July 2023, Surrey, United Kingdom.

**Dg-manifolds in Geometry and Physics.**

3–7 July 2023, Paris, France.

**From smooth to C symplectic geometry: topological aspects and dynamical implications.**

3–7 July 2023, Marseille, France.

**Numerical Methods in Theoretical Physics.**

10–14 July 2023, Pohang, Korea.

**Analysis of PDEs: Variational and Geometric Perspectives.**

10–14 July 2023, Bonn, Germany.

**Symplectic Singularities and Supersymmetric QFT.**

10–21 July 2023, Amiens, France.

**Emergent Geometries from Strings and Quantum Fields.**

12–28 July 2023, Firenze, Italy.

**Nonlinear PDEs: Recent Trends in the Analysis of Continuum Mechanics.**

17–21 July 2023, Bonn, Germany.

**SIAM Conference on Control and Its Applications.**

24–26 July 2023, Pennsylvania, USA.

**XII International Symposium on Quantum Theory and Symmetries.**

24–28 July 2023, Prague, Czech Republic.

**Integrability, Dualities and Deformations.**

24–28 July 2023, Durham, United Kingdom.

**XXVII International Conference on Integrable Systems and Quantum Symmetries.**

24–28 July 2023, Prague, Czech Republic.

**Online CIMPA Course: "On representations of affine Lie superalgebras".**

25–29 July 2023, Isfahan, Iran.

**Applied and Computational Differential Geometry and Geometric PDEs.**

30 July–4 August 2023, Banff, Canada.

**20th International Workshop on Pseudo-Hermitian Hamiltonians in Quantum Physics.**

31 July–4 August 2023, Istanbul, Turkey.

**Summer School on Current Topics in Mathematical Physics.**

31 July–4 August 2023, Warsaw, Poland.

**VIASM-IAMP Summer School in Mathematical Physics.**

1–5 August 2023, Quy Nhon, Vietnam.

**Finite Dimensional Integrable Systems in Geometry and Mathematical Physics.**

7–11 August 2023, Antwerp, Belgium.

**Groups, Actions, and Geometries.**

7–11 August 2023, Medford, USA.

**Women in Mathematical Physics II.**

13–18 August 2023, Banff, Canada.

**Summer School on Differential Geometry.**

14–25 August 2023, Hanoi, Vietnam.

**Symplectic Paradise.**

16–20 August 2023, Montana, USA.

**12th International Conference on Mathematical Modeling in the Physical Sciences.**

28–31 August 2023, Belgrade, Serbia.

**Geometric Science of Information.**

30 August–1 September 2023, Saint-Malo, France.

**XLIII Dynamics Days Europe.**

---

## Online Courses

---

**ICTP–PWF Latin America - Advanced Lectures on Theoretical Physics: Quantum Field**

---

## Virtual seminars

---

**Online Seminar of the Geometry, Mechanics and Control Thematic Network.**

Instituto de Ciencias Matemáticas' seminars on these topics.

**Mathematics and High Energy Physics Seminars.**

ICTP-PWF Latin America-Physics Latam New Seminar Series.

**One World IAMP Mathematical Physics Seminar.**

3–8 September 2023, Naples, Italy.

**Classical and Quantum Mechanical Models of Many-Particle Systems.**

3–8 September 2023, Oberwolfach, Germany.

**Many-Body Quantum Systems.**

10–15 September 2023, Oberwolfach, Germany.

**Geometric, Algebraic and Topological Methods in Quantum Field Theory.**

17–23 September 2023, Villa de Leyva, Colombia.

**Women in Geometry 3.**

24–29 September 2023, Banff, Canada.

**Complex Lagrangians, Mirror Symmetry, and Quantization.**

15–20 October 2023, Banff, Canada.

**Lagrangian Multiform Theory and Pluri-Lagrangian Systems.**

22–27 October 2023, Banff, Canada.

**Differential Galois Theory and Applications to Mechanics (CIMPA School).**

23 October–3 November 2023, Santo Domingo, Dominican Republic.

**Mini-Workshop: Standard Subspaces in Quantum Field Theory and Representation Theory.**

29 October–3 November 2023, Oberwolfach, Germany.

**Theory I.**

11 September 2023–31 January 2024.

Seminar of International Association of Mathematical Physics.

**Virtual Seminar on Geometry with Symmetries.**

On the topic of Lie group actions in Riemannian geometry.

**Control and Optimization Seminar.**

Louisiana State University.

**Differential Geometry Seminar Torino.**

Organised by the Differential Geometry groups of Università di Torino and Politecnico di Torino.

### **Symplectic Zoominar.**

Online Seminar organized by CRM-Montréal, Princeton/IAS, Tel Aviv, and Paris.

### **ICTP Virtual Seminars.**

Online Seminar organized by International Centre for Theoretical Physics.

### **Theory of Duality Seminar.**

Department of Mathematical Methods in Physics, University of Warsaw.

### **Geometry and Topology Online.**

Warwick Mathematics Institute.

## **Job offers, fellowships and supports**

---

### **Ph.D. offers**

---

#### **PhD Position in in Stochastic Analysis .**

University of Amsterdam, Amsterdam, Netherlands  
Closing date: 5 May 2023.

#### **PhD position in Mathematics.**

University of Southern Denmark, Odense, Denmark  
Closing date: 10 May 2023.

#### **Research Associate in Fluid Dynamics.**

Hamburg University, Hamburg, Germany  
Closing date: 19 May 2023.

#### **PhD Student in Mathematical Physics.**

Mid Sweden University, Sundsvall, Sweden  
Closing date: 26 May 2023.

#### **PhD position in Differential Geometry.**

Université libre de Bruxelles, Brussels, Belgium  
Closing date: 31 May 2023.

#### **PhD candidate in Differential Geometry .**

University of Luxembourg, Belval, Luxembourg  
Closing date: 15 June 2023.

#### **PhD candidate in Geometry.**

KU Leuven, Leuven, Belgium  
Closing date: 30 June 2023.

#### **PhD position in Analysis/Geometry .**

University of Fribourg, Fribourg, Switzerland  
Closing date: 30 August 2023.

#### **PhD candidate in Tensor Calculus.**

Czech Technical University, Prague, Czech Republic  
Closing date: 25 October 2023.

#### **PhD positions.**

TU Delft, Delft, The Netherlands  
Closing date: Open until filled.

### **Postdoctoral fellowships**

---

#### **Postdoctoral position in Inverse Problems.**

University of Helsinki, Helsinki, Finland  
Closing date: 12 May 2023.

#### **Postdoctoral position in Supersymmetry.**

The Arctic University of Norway, Tromsø, Norway  
Closing date: 21 May 2023.

#### **Postdoctoral assistant in Mathematics.**

Ghent University, Ghent, Belgium  
Closing date: 23 May 2023.

#### **Postdoctoral Fellow in PDEs and Mathematical Physics.**

Université Libre de Bruxelles, Brussels, Belgium  
Closing date: 30 May 2023.

#### **Postdoctal position in Optimal Control.**

Centre Inria de Saclay, Gif-sur-Yvette, France  
Closing date: 31 May 2023.

#### **Postdoctoral positions in Uncertainty Quantification.**

DTU Compute | Copenhagen, Denmark  
Closing date: 1 June 2023.

#### **Postdoctoral position in Differential Geometry .**

University of Luxembourg, Belval, Luxembourg  
Closing date: 15 June 2023.

#### **Postdoctoral positions in Stochastic Dynamics.**

Technical University of Munich, Munich, Germany  
Closing date: 15 June 2023.

#### **Postdoctoral Fellowship in Environmental Applications of Mathematics .**

Centre de Recerca Matemàtica, Barcelon, Spain  
Closing date: 30 June 2023.

**Postdoctoral fellowship in Applied Mathematics.**

Fundação Getulio Vargas, Rio de Janeiro, Brazil

Closing date: 6 August 2023.

**Postdoctoral position in Mathematical Optimisation.**

TU Braunschweig, Braunschweig, Germany

Closing date: Open Until Filled.

**Humboldt research fellowship for postdoctoral researchers.**

Alexander von Humboldt Foundation

Closing date: Open.

## Offers for researchers

---

**Tenure-Track position in Mathematical Biology.**

Pontificia Universidad Católica de Chile, Santiago de Chile, Chile

Closing date: 7 May 2023.

**Tenure-track position in Mathematics.**

Nanjing University, Nanjing, China

Closing date: 31 May 2023.

**Assistant or Full Professor of Mathematical Physics.**

Sapienza University of Rome, Rome, Italy

Closing date: 31 May 2023.

**Associate Professor in Mathematics.**

Stockholm University, Stockholm, Sweden

Closing date: 31 May 2023.

**Professor Positions in Mathematics.**

Korea Institute For Advanced Study, Seoul, South Korea

Closing date: 1 June 2023.

**2 Professor positions in Applied Mathematics.**

University of Leicester, Leicester, United Kingdom

Closing date: 3 June 2023.

**Open rank faculty positions in Applied Mathematics .**

Fundação Getulio Vargas, Rio de Janeiro, Brazil

Closing date: 6 August 2023.

**Assistant/Associate Professor of Mathematics.**

Westminster College, Fulton, United States of America

Closing date: Open Until Filled.

**Faculty positions in Mathematics.**

Bilkent University, Ankara, Turkey

Closing date: Open Until Filled.

## Offers for visiting researchers

---

**Abel Visiting Scholar Program.**

International Mathematical Union.

Postdoctoral mathematician to visit a research collaborator for a month.

Closing date: 31 August, 31 December and 30 April.

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

Oberwolfach, Germany.

Junior or senior scientists from outside Europe.

Closing date: Open.

**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.

**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.

**International Research in Groups at CIRM.**

Centre International de Rencontres Mathématiques (CIRM), France.

Small groups of researchers for 2 to 4 weeks.

Closing date: Open at any time.

**Research in Residence at CIRM.**

Centre International de Rencontres Mathématiques (CIRM), France.

2 to 4 researchers.

Closing date: Open at any time.

**Visiting scholar opportunity in Cambridge.**

University of Cambridge, United Kingdom.

Scholars and fellows for development of research, teaching and collaboration.

Closing date: Open.

**Small team visiting the CRM.**

Centre de Recerca Matemàtica, Catalonia, Spain.

Postdoctoral positions and research in pairs.

Closing date: Any time between 6 and 12 months before the start of the desired stay.

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

Mathematics Department-KSU, Ohio, USA.

Visiting for scholar researchers.

**Closing date: Open.**

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

---

### **IMU Conference support program.**

For conferences in developing or economically disadvantaged countries.

**Deadline: 15 July, 1 October 2023 and 15 April.**

### **IMU Volunteer Lecturer Program.**

Financial assistance to universities in developing countries to host a 3-4-week intensive course.

**Deadline: 1 June and 1 September 2023.**

### **CIMPA-ICTP Fellowships for "Research in Pairs".**

For researchers based in a developing country to collaborate with a colleague in Europe.

**Deadline: 10 July 2023.**

### **Thematic programs at MSRI.**

Mathematical Sciences Research Institute, Berkeley, United States.

**Deadline: 1 October, 1 December and 1 March every year. Three years ahead.**

### **Hot topics Workshop at MSRI.**

Mathematical Sciences Research Institute, Berkeley, United States.

**Deadline: 1 October, 1 December and 1 March every year every year.**

### **Summer graduate schools at MSRI.**

Mathematical Sciences Research Institute, Berkeley, United States.

**Deadline: 1 October, 1 December and 1 March every year every year.**

### **Workshop at CIRM.**

Centre International de Rencontres Mathématiques, France.

**Deadline: Open at any time.**

### **CIMPA Online courses program.**

Geographic areas of activities of CIMPA (Africa, Central or South America, Asia).

**Deadline: Open all year.**

### **Support for workshop organization at Banff.**

Banff International Research Station.

**Deadline: No precise deadline.**

### **Proposal of a workshop in the Mathematisches Forschungsinstitut Oberwolfach.**

Oberwolfach, Germany.

**Deadline: Open.**

### **Hosting a workshop at AIMS South Africa.**

Contributions for workshops about AIMS's research focus areas.

**Deadline: No precise deadline.**

## **Interesting publication**

---

**Special Issue "Contact Geometry: Reduction, Symmetries and Applications".**

Section "Physics and Symmetry/Asymmetry".

**Deadline: Deadline for submissions: 15 July 2023.**

## **Preprints**

---

### **Network's members**

---

Alexandre Anahory Simões, María Barbero Liñán, Leonardo Colombo and David Martín de Diego: *Higher-order retraction maps and construction of numerical methods for optimal control of mechanical systems.*

2303.17917

[math.OC, cs.NA, math.NA]

*nomic systems with inequality constraints.*

2303.17920

[math-ph, math.MP]

José F. Cariñena, Eduardo Martínez and Miguel C. Muñoz-Lecanda: *Sundman transformation and alternative tangent structures.*

2304.00284

[math-ph, math.MP]

Alexandre Anahory Simões and Leonardo Colombo: *Hamel equations and quasivelocities for nonholo-*

Joaquim Brugués, Sonja Hohloch, Pau Mir and Eva

Miranda: *Constructions of b-semitoric systems.*

2304.00560

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

Xavier Rivas, Modesto Salgado and Silvia Souto: *Some contributions to k-contact Lagrangian field equations, symmetries and dissipation laws.*

2304.00833

[math-ph, math.MP]

Rui Loja Fernandes and David Iglesias Ponte: *Cosymplectic groupoids.*

2304.06163

[math.SG, math.DG]

Rutwig Campoamor-Stursberg, Eduardo Fernández-Saiz and Francisco J. Herranz: *Exact solutions and superposition rules for Hamiltonian systems generalizing stochastic SIS epidemic models with variable infection rates.*

2304.08843

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

Karandeep Jandu Singh and Marco Zambon: *Stability of fixed points of Dirac structures.*

2304.12103

[math.SG, math.QA]

## Network's collaborators

---

H. W. Braden and Linden Disney-Hogg: *Towards a Classification of Charge-3 Monopoles with Symmetry.*

2303.18189

[hep-th, math.DG, nlin.SI]

David Lindemann and Andrew Swann: *Special homogeneous surfaces.*

2303.18228

[math.DG, hep-th, math.AG]

Christian Blohmann, Stefano Ronchi and Alan Weinstein: *Hamiltonian Lie algebroids over Poisson manifolds.*

2304.03503

[math.SG]

Joshua Pickard, Amit Surana, Anthony Bloch and Indika Rajapakse: *Observability of Hypergraphs.*

2304.04883

[math.DS, cs.SY, eess.SY]

Juan D. García-Muñoz, David J. Fernández C. and F. Vergara-Méndez: *Supersymmetric Quantum Mechanics, multiphoton algebras and coherent states.*

2304.05461

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

Katarzyna Grabowska and Janusz Grabowski: *Regular contact manifolds.*

2304.05891

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

Roberto Camassa and Richard M. McLaughlin: *Tauberian identities and the connection to Wile E. Coyote physics.*

2304.06127

[math.DS, math.CA, physics.app-ph, physics.pop-ph]

Decio Levi and Miguel Á. Rodríguez: *S-Integrable three-point partial difference equations on the lattice plane.*

2304.06956

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

Andreas Fring and Takanobu Taira: *Non-Hermitian Quantum Fermi Accelerator.*

2304.07950

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

Anton Izosimov, Boris Khesin and Ilia Kirillov: *Coadjoint orbits of area-preserving diffeomorphisms of non-orientable surfaces.*

2304.09354

[math.SG]

Alexey V. Bolsinov, Andrey Yu. Konyaev and Vladimir S. Matveev: *Nijenhuis geometry IV: conservation laws, symmetries and integration of certain non-diagonalisable systems of hydrodynamic type in quadratures.*

2304.10626

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

Anthony M. Bloch and Steven N. Karp: *Symmetric Toda, gradient flows, and tridiagonalization.*

2304.10697

[nlin.SI, math.CO, math.DS]

Bertrand Chapron, Dan Crisan, Darryl Holm, Oana Lang, Alexander Lobbe and Etienne Mémin: *Comparison of Stochastic Parametrization Schemes using Data Assimilation on Triad Models.*

2304.14216

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

## Links of interest

---

Geometry, Mechanics and Control Network

Journal of Geometric Mechanics

International Mathematical Union (IMU)  
Newsletter - March 2023

International Association of Mathematical  
Physics Bulletin - January 2023

European Mathematical Society

Royal Spanish Mathematical Society  
(RSME)

International Association of Mathematical  
Physics

Open Access American Institute of Mathe-  
matical Sciences (AIMS) Journal

International Centre for Theoretical Physics  
(ICTP)

European Research Council

European Commission - Research and Inno-  
vation

International Center of Pure and Applied  
Mathematics (CIMPA)

Mathematical and physical sciences funding,  
National Science Foundation, USA

Open Access Mathematics Journals

Open Access Physics Journals

Societat Catalana de Matemàtiques (SCM)  
journal on Mathematics

SIAM Activity Groups award various prizes

International Mathematical Union Awards  
and Prizes

Other Prizes of International Mathematical  
Union

American Mathematical Society Prizes and  
Awards

Mathematical Association of America  
Awards

Association for Women in Mathematics  
Awards

IEEE Control Systems Society Awards

Royal Society of London Premier Medals and  
Awards

London Mathematical Society Prizes

The Shaw Prize

The Henri Poincaré Prize

European Mathematical Society Funding and  
Sponsorship

The British Royal Society Grants

The British Royal Society's medals and  
award

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