

PERSONAL INFORMATION

Sergiu Moroianu

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WORK EXPERIENCE

- Since 2024 Professor, Facultatea de Matematică, Universitatea București
- Since 2013 Senior Researcher 1, Institute of Mathematics of the Romanian Academy

EDUCATION AND TRAINING

- 1999 PhD in Mathematics, MIT
- 2004 Habilitation a diriger des recherches, Universite de Toulouse

Publications (selection)

- 1) Homology of pseudo-differential operators on manifolds with fibered boundaries (with Robert Lauter), *J. Reine Angew. Math.* 547 (2002), 207–234.
- 2) Cusp geometry and the cobordism invariance of the index, *Adv. Math.* 194 (2005), 504–519.
- 3) Weyl laws on open manifolds, *Math. Ann.* 340, nr. 1 (2008), 1–21.
- 4) Adiabatic limit of the Eta invariant over cofinite quotients of $\mathrm{PSL}(2;\mathbb{R})$ (with P. Loya and J. Park), *Compositio Mat.* 144 (2008), 1593–1616.
- 5) Quasi-fuchsian manifolds with particles (with Jean-Marc Schlenker), *J. Differ. Geom.* 83 (2009), 75–129.
- 6) The Cauchy problem for Einstein metrics and parallel spinors (cu Bernd Ammann and Andrei Moroianu), *Commun. Math. Phys.* 320, 173–198 (2013).
- 7) Chern-Simons line bundle on Teichmuller space (with Colin Guillarmou), *Geometry & Topology* 18 (2014), 327–377.
- 8) Ricci surfaces (with Andrei Moroianu), *Ann. Sc. Norm. Super. Pisa Cl. Sci.* 14, no. 4 (2015), 1093–1118.
- 9) Convexity of the renormalized volume of hyperbolic 3-manifolds *Amer. J. Math* 139 (2017), 1379–1394.
- 10) Higher transgressions of the Pfaffian, *Revista Matematica Iberoamericana* 38 (2022), 1425–1452.

Projects

- Grants as principal investigator:
- * PN-III-P4-ID-PCE-2020-0794 “Spectral Methods in Hyperbolic Geometry”, 1118K lei.
 - PN-III-P4-ID-PCE-2016-0330 “Volumes of hyperbolic and Einstein manifolds”, 850K lei.
 - PNII-TE-0053/2011 “Quantum invariants in hyperbolic geometry”, 705K lei.
 - PNII-ID-1188/2009 “Geometric and quantum invariants of 3-manifolds and applications”, 1000K lei.
 - CNRS – Romanian Academy grant, **2006–2007**.
 - Marie Curie European reintegration grant MERG-006375, **2004–2005**, 40K euro.

Recent activity

- * “Algebraic, Complex and Differential Geometry and Topology” section of the 10th Congress of Romanian Mathematicians, Pitesti, 2023
- “Semiclassical trace formula”, Auffargis, France, 2021.
- “Algebraic, Complex and Differential Geometry and Topology” section of the 9th Congress of Romanian Mathematicians, Galati, 2019
- “Bucharest Conference on Geometry and Physics”, 2019
- “Workshop on Riemannian and Kahler Geometry”, IMAR, 2019
- “Topology and Geometry: A conference in memory of Ștefan Papadima (1953–2018)”,

Visiting Professor

IMAR

Universite de Lorraine (Metz), Universite Paul Sabatier (Toulouse), Ecole Normale Supérieure (Paris), Ecole Polytechnique (Palaiseau)

Honours and awards

- * Ad Astra prize “Exceleență în cercetare – afiliere în România”, 2014.
- * Romanian Academy prize “Simion Stoilow”, 2005.
- * National Foundation for Science and Arts prize, 2004.
- * International Mathematical Olympiads 1st prize (42 pts), 1991.

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Name: Sergiu Moroianu

Signature

