

Leonardo Bagaglino

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Born: May 19, 1990—Velletri (RM), Italy



Education

- Currently engaged in **POST-GRADUATED COURSE IN METEOROLOGY AND PHYSICAL OCEANOGRAPHY**, “Università degli Studi del Salento” and “Università degli Studi di Napoli Parthenope”, Napoli, Italy.
- 2014-2017 **DOCTOR OF PHILOSOPHY** in Mathematics, “Università degli Studi di Firenze”, Firenze, Italy.
Thesis: Nilmanifolds, submanifolds and flows related to classes of G_2 -structures.
Supervised by Prof. Fino Anna Maria. Defended on March 6th 2018.
- 2016-2017 Visiting scholar at “Università degli Studi di Torino”, Torino, Italy.
- 2012-2014 **MASTER DEGREE** in Mathematics, “Università degli Studi di Roma: Tor Vergata”, Roma, Italy.
Final mark: 110 cum laude /110.
Thesis: Holonomy groups with irreducible representations.
Supervised by Prof. Nacinovich Mauro.
- 2009-2012 **BACHELOR DEGREE** in Mathematics, “Università degli Studi di Roma: Tor Vergata”, Roma Italy.
Final mark: 110 cum laude /110.
Thesis: Myers’s Theorem and invariant metrics on Lie groups.
Supervised by Prof. Iannuzzi Andrea.

Research articles and preprints

- 2018 *A energy functional on the universal spinor bundle.* (preprint),
[arxiv:1712.06398](https://arxiv.org/abs/1712.06398).
[arXiv:1709.06356](https://arxiv.org/abs/1709.06356).
- 2018 *The Laplacian co-flow on almost abelian Lie groups*, with A. Fino. *Annali di Matematica*. <https://doi.org/10.1007/s10231-018-0753-9>
- 2017 *Laplacian co-flow on the Heisenberg group* (submitted), with A. Fino and M. Fernández,
[arXiv:1704.00295](https://arxiv.org/abs/1704.00295).
- 2017 *Non orientable three-submanifolds of G_2 -manifolds*. DOI 10.1515/advgeom-2018-0023. (to appear in “Advances in Geometry”) [arXiv:1609.01557](https://arxiv.org/abs/1609.01557).
- 2017 *A flow of isometric G_2 -structures. Short-time existence.* (submitted),
- 2016 *Coclosed G_2 -structures inducing nilsolitons*, with A. Fino and M. Fernández,
Forum Mathematicum <https://doi.org/10.1515/forum-2016-0238>.
- 2015 *Invariant cocalibrated G_2 -structures on nilmanifolds* (preprint) [arXiv:1509.01971](https://arxiv.org/abs/1509.01971).

Research Seminars

- 2018 Nilmanifolds, submanifolds and flows related to classes of G_2 -structures. Ph.D. defence.
March 6 2018. Università degli Studi di Firenze, Firenze, Italy.
- 2018 A constrained heat flow of G_2 -structures.
January 24 2018, Informal Geometry Workshop in “Paradiso”, Cogne (AO), Italy.
- 2017 Flows of co-closed G_2 -structures.
April 2017, Differential Geometry Days, “Università degli Studi di Torino”, Torino, Italy.
- 2016 Laplacian co-flow of G_2 -structures and non-orientable submanifolds.
September 27 2016, “Università degli Studi di Firenze”, department of Mathematics, Firenze, Italy.
- 2015 Invariant G_2 -structures on homogeneous manifolds.
October 30 2015, “Università degli Studi di Firenze”, department of Mathematics, Firenze, Italy.
- 2015 S-regular functional calculus for bounded operators.
May 28 2015, “Università degli Studi di Firenze”, department of Mathematics, Firenze, Italy.

Awards

- 2014 Full doctoral scholarship. Università degli Studi di Firenze.

Teaching activity

Teaching assistant

- 2016 Course in Topology
undergraduate course, Department of Mathematics, University “Università degli Studi di Firenze”,
Firenze, Italy.
- 2014 Course in Geometry
undergraduate course, Department of Material Sciences, University “Università degli Studi di Roma:
Tor Vergata”, Roma, Italy.
- 2014 Course in Calculus (IV)
undergraduate course, Department of Mathematics, University “Università degli Studi di Roma:
Tor Vergata” Roma, Italy.

Additional informations

- Park volunteer “Parco Nazionale di Abruzzo, Lazio e Molise”, Abruzzo, IT.
“Parco delle foreste casentinesi”, Emilia Romagna, IT
- Volunteer “ICN Italian Climate Network” member.
“AC Cavata Flumen” volunteer.

July 30, 2018

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