

Paolo Salvatore

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Degrees

- Degree in Mathematics , University of Genova, Italy, 1993.
- Ph.D., University of Milano, Italy, 1998.
- D.Phil., University of Oxford, England, 1999.

Fellowships and employment

- Assistant professorship at University of Roma Tor Vergata, Italy, November 1999-present
- Visiting fellowships, Lille, France. September 2000-March 2001, December 2002 and June 2007.
- Young researcher grant, University of Roma Tor Vergata, September 2001-September 2002.
- Marie Curie postdoctoral fellowship, University of Bonn, Germany. December 1998 - November 1999.
- Marie Curie graduate fellowship, University of Oxford, England. June 1997 - December 1998.
- Fellowship of the Ph.D. Programme, Milan, Italy. November 1993 - June 1997.
- Italian National Research Council undergraduate scholarship, May 1993 - October 1993.

Conference and Advanced School Lectures

- Workshop on E_n -operads in differential graded algebra, Copenhagen (Denmark), 17-21 November 2008. Talk: *Multivariable operations and cosimplicial spaces*
- Arolla Conference on Algebraic Topology, Arolla (Switzerland), 18-24 August 2008. Talk: *The topological cyclic Deligne conjecture*
- Workshop on String Topology and the Topology of Moduli Spaces, Stanford University (USA), 24-27 March 2008. Talks: *Generalizations and applications of string topology*
- Mapping class groups and operads workshop, Copenhagen (Denmark), 3-7 September 2007. Talk: *Bar construction for topological operads*
- Postnikov Memorial Conference, Bedlewo (Poland), 18-24 June 2007. Talk: *Cacti operads and the topological Deligne conjecture*
- Summer school in Algebraic Topology, Lille (France), 11-15 June 2007. Talks: *Cacti, knots and the Deligne conjecture*
- Workshop, Copenhagen (Denmark), 4-8 September 2006. Talk: *Knots and operads*
- Alpine Operad Workshop, Villars (Switzerland), 6-9 March 2006. Talk: *Euclidean knots and double loop spaces*
- Conference on pure and applied algebraic topology, Skye (UK), 21-25 June 2005. Talk: *String topology and applications*
- School on configuration spaces, Louvain-la-Neuve (Belgium), June 2004.
- AMS sectional meeting 2004 “Homotopical physics” Lawrenceville, New Jersey (USA), April 2004.
- Workshop on String Topology, Stony Brook (USA), August 2003.
- Invited speaker at “Journées de Topologie Algébrique”, Carthage (Tunisia), July 2003.
- GDR Conference, Lille (France), September 2002.
- Barcelona Conference on Algebraic Topology, Barcelona (Spain), July 2002.
- School on characteristic classes in Topology and Geometry, Lens (France), May 2002.
- Cinvestav conference, Mexico City (Mexico), December 2001.

- Euro-phd conference on algebraic topology, Barcelona (Spain), July 2001.
- Workshop on operads and their applications, Osnabrueck (Germany), December 2000.
- Winter school on operads, Goettingen (Germany), December 2000.
- Euro-mediterranean topology conference, Barcelona (Spain), July 2000.
- 20th Winter School on Geometry and Physics, Srni (Czech Republic), January 2000.
- Barcelona Conference on algebraic topology, June 1998.

Seminars and visits on invitation

- University of Oxford (England). 24 November 2008. Topology seminar.
- University of Bonn (Germany), 15 April 2008. Topology seminar.
- Max-Planck-Institut Bonn (Germany), April 2008. One week visit.
- MIT, Cambridge (USA), 31 March 2008. Topology seminar.
- University of Lille (France), June 2007. One month visit.
- IHES, Bures-sur-Yvette (France), November 2006. One week visit.
- University of Pisa. Algebra and Geometry seminar, March 2006.
- University of Roma La Sapienza, Algebra and Geometry seminar, March 2006.
- University of Roma La Sapienza, Seminars on the Mumford conjecture, 2005/06
- Colloquium Brandeis-Harvard-MIT-Northeastern, Boston (USA), April 2004.
- University of Genova (Italy), October 2003. Seminar of Mathematical Physics.
- University of Lille (France), December 2002. Topology seminar.
- University of Milano Bicocca (Italy), November 2001. Visit.
- Oxford (England), January 2001. Topology seminar.
- Lille (France), February 2000. Topology seminar.

- Osnabrueck (Germany), November 1999. Colloquium.
- Paris Villetaneuse (France), September 1999. Topology seminar.
- Utrecht (Holland), April 1999. Seminar.
- Max-Planck-Institut Bonn (Germany), March 1999. Topology seminar
- Aberdeen (Scotland), May 1997. Seminar.
- Louvain-la-Neuve (Belgium), November 1996. Seminar.
- Mainz (Germany), August 1995. Seminar.

Scientific duties

- Editor of the Postnikov Memorial Conference proceedings, 2007.
- Organiser of the workshop “Knots and Operads in Roma”, University of Roma La Sapienza, July 2006.
- Referee for peer reviewed journals (e.g. Topology, Algebraic and Geometric Topology, Q.J. Math., Topology and its Applications).
- Reviewer for the A.M.S.
- Member of the Italian National Institute of High Mathematics (INDAM)

Research interest

My main research interests are in Algebraic and Geometric Topology. I have always been active in the theory of operads: my recent work deals with its applications to the topology of knot spaces. I have also been working on configuration spaces on manifolds, on spaces of smooth and holomorphic maps; on homology operations in string topology and applications.

Articles

- *The topological cyclic Deligne conjecture*, to appear in Algebraic and Geometric Topology.
- *The Lie operad is free* (with R. Tauraso), Journal of Pure and Applied Algebra 213 (2009) 224-230.
- *Generalized string topology operations* (with K. Gruher), Proceedings of the LMS 96 (2008) 78-106.

- *Knots, operads and double loop spaces*, IMRN 13628 (2006).
- *Symmetric products of two dimensional complexes* (with S. Kallel), in: *Recent Developments in Algebraic Topology*, Contemporary Mathematics 407(2006), pp. 147-161.
- *Rational maps and string topology*(with S.Kallel), *Geometry and Topology* 10 (2006), pp. 1579-1606.
- *Configuration spaces are not homotopy invariant* (with R. Longoni), *Topology* 44/2 (2005), pp. 375-380. Elsevier.
- *Configuration spaces on the sphere and higher loop spaces*, *Math. Z.* 248 (2004), pp. 527-540. Springer-Verlag.
- *Framed discs operads and Batalin-Vilkovisky algebras*(with N.Wahl), *Quart. J. Math.* 54 (2003), 213-231.
- *Configuration spaces with summable labels*, in: *Cohomological Methods in Homotopy Theory*, *Prog. in Math.* 196 (2001) pp. 375-396, Birkhäuser, Berlin.
- *Homotopy type of Euclidean configuration spaces*, *Suppl. Rendiconti del Circolo Matematico di Palermo, Serie II, Suppl.* 66 (2001) pp. 161-164, Palermo.
- *Rational homotopy nilpotency of self-equivalences*, *Journal of Topology and its Applications*, volume n. 77, n.1, pp. 37-50, 13 May 1997. Elsevier, Amsterdam.

Undergraduate Teaching

University of Oxford:

TA for Algebraic Topology, B.Sc. Math. 3rd year, Hilary Term 1996.

University of Roma Tor Vergata:

Since my appointment (1999) I have been teaching on average two undergraduate courses per year on linear algebra, differential geometry, and calculus.