

## PERSONAL INFORMATION

## Marco M. Peloso



Università degli Studi di Milano

 Dipartimento di Matematica "Federigo Enriques"  
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CURRENT POSITION  
(SINCE OCTOBER 1, 2007)

Full Professor of Mathematics  
(Professore Ordinario di Analisi Matematica)  
Dipartimento di Matematica "Federigo Enriques"  
Università degli Studi di Milano

## CURRENT RESPONSIBILITIES

Associate Editor, *Journal of Geometric Analysis*, since October 1, 2007  
Associate Editor, *Journal of Mathematical Analysis and Applications*, since October 1, 2000

Department of Mathematics, Vice Chairman, since October 1, 2017  
Department of Mathematics, Presidente Commissione Didattica, since October 1, 2018

Scientist in Charge of a Local Node, research project "PRIN 2015" *Real and Complex Manifolds: Geometry, Topology and Harmonic Analysis*, February 1, 2017-- February 5, 2020.

## RECENT RESPONSIBILITIES

November 1, 2010 --  
July 31, 2013

Head of the Graduate Program in Mathematics (Coordinatore Collegio Dottorato in Matematica)  
Università degli Studi di Milano

October 1, 2008 -- July 31, 2013

Presidente Commissione Didattica del Dipartimento di Matematica

October 1, 2008 --  
September 30 2011

Department of Mathematics Vice Chairman (Vice Direttore Dipartimento di Matematica)

June 1, 2009 -- May 31, 2011

Member of the University Postdoctoral Grants Committee (Membro Commissione di Garanzia)  
Università degli Studi di Milano

## EDUCATION

August 22, 1990

Ph.D. in Mathematics  
Washington University in St. Louis  
(advisor Prof. Steven Krantz)

July 17, 1984

Laurea in Matematica  
Università degli Studi di Milano  
(relatore Prof. Leonede De Michele)

## ACADEMIC POSITIONS HELD

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August 15, 2012 – May 15, 2013	Visiting Professor Department of Mathematical Sciences, University of Arkansas, Fayetteville
January 2 – May 20, 2006	Visiting Scholar Department of Mathematics, Washington University in St. Louis
August 15 – December 15, 2005	Visiting Professor, Department of Mathematics University of Missouri, Columbia
December 27, 2002 – September 30, 2007	Full Professor, Dipartimento di Matematica Politecnico di Torino
July 15 – August 31, 2001	Professor, S.M.I., Scuola Matematica Interuniversitaria, Perugia
November 1, 1998 – December 26, 2002	Associate Professor Dipartimento di Matematica Politecnico di Torino
November 14, 1991 – October 31, 1998	Ricercatore Universitario Dipartimento di Matematica Politecnico di Torino
June 1 – November 13, 1991	Postdoc (Assegnista) INdAM Dipartimento di Matematica Politecnico di Torino
January 2 – May 31, 1991	Visiting Scholar Mittag-Leffler Institute Stockholm
August 15 – December 15, 1991	Visiting Instructor Department of Mathematics Michigan State University, East Lansing

## RECENT GRANTS

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February 1, 2016 – February 5, 2020	Scientist in Charge of a Local Node, research project <i>Real and Complex Variables: Geometry, Topology and Harmonic Analysis</i> , Prin 2010-11
February 1, 2013 – January 31, 2016	Scientist in Charge of a Local Node, research project <i>Varietà reali e complesse: geometria, topologia e analisi armonica</i> , Prin 2010-11
2009	Principal Investigator, PUR grant of <b>Università degli Studi di Milano</b> , 2009
July 15, 2002 – July 15 2006	Scientist in Charge for the Italian node of the IHP research project of the European Community <i>Harmonic Analysis and Related Problems HARP</i> , Contract Number RNT2-2001-00315
November 1, 2000 – August 31, 2002	Scientist in Charge for the Italian node of the TMR research project of the European Community <i>Harmonic Analysis</i> , Contract Number FMRX-CT97-0159

## RECENT PUBLICATIONS

- 2019
1. (with N. Arcozzi, A. Monguzzi, and M. Salvatori) Paley–Wiener theorems on the Siegel upper half-space, *Jour. of Fourier Anal. and Appl.*, (2019) in print.
  2. (with S. Krantz and C. Stoppato) Completeness on the worm domain and the Mu'ntz–Sz'asz problem for the Bergman space, *Math. Res. Let.* (2019) in print.
  3. (with F. Colombo, S. Mongodi, and S. Pinton) Fractional powers of the non-commutative Fourier's law by the S-spectrum approach, *Math. Meth. in the Appl. Sc.* <https://doi.org/10.1002/mma.5466>, (2019) in print.
- 2018
4. (with T. Bruno, A. Tabacco, and M. Vallarino) Sobolev spaces on Lie groups: Embedding theorems and algebra properties, *Jour. Funct. Anal.* (2018) <https://doi.org/10.1016/j.jfa.2018.11.014>.
  5. (with M. Vallarino) Sobolev algebras on nonunimodular Lie groups, *Calc. Var. Partial Differential Equations* 57 (2018), no. 6, 33 pages.
  6. (with S. Krantz and B. Liu) Geometric Analysis on the Diederich–Fornæss Index *J. Korean Math. Soc.* 55 (2018), no. 4, 897:921.
- 2017
7. (with A. Monguzzi) Sharp estimates for the Szeg'ö projection on the distinguished boundary of model worm domains *Integral Equations Operator Theory* 89 (2017), no. 3, 315-344.
  8. (with E. Barletta and S. Dragomir) Worm domains and Fefferman space-time singularities, *J. Geom. Phys.* 120 (2017), 142-168.
  9. (with M. Salvatori) Functions of exponential growth in a half-plane, sets of uniqueness, and the Mu'ntz–Sz'asz problem for the Bergman space, *J. Geom. Anal.* 27 (2017), no. 3, 2570-2599.
  10. (with A. Monguzzi) Regularity of the Szeg'ö projection on model worm domains, *Complex Var. Elliptic Equ.* 62 (2017), no. 9, 1287-1313.
- 2016
11. (with M. Salvatori) On some spaces of holomorphic functions of exponential growth on a half-plane, *Concr. Oper.* 3 (2016), 52–67.
  12. (with S. Krantz and C. Stoppato) Bergman kernel and projection on the unbounded worm domain *Ann. Sc. Nor. Sup. Pisa* (5) 16 (2016), no. 4, 11531183.
- 2015
13. (with D. Barrett and D. Ehsani) Regularity of projection operators attached to worm domains, preprint, *Doc. Math.* 20 (2015), 1207-1225.
  14. (with P. Harrington and A. Raich) Regularity equivalence of the Szeg'ö projection and the complex Green operator, *Proc. Amer. Math. Soc.* 143 (2015), no. 1, 353–367.
  15. (with D. Müller and F. Ricci) Analysis of the Hodge Laplacian on the Heisenberg group, *Memoirs Amer. Math. Soc.* 233 (2015), no. 1095.
  16. (with V. Casarino) Strichartz estimates for the Schrödinger equation for the sublaplacian on complex spheres, *Trans. Amer. Math. Soc.* 367 (2015), no. 4, 2631–2664.

## DIRECTIONS OF RESEARCH

- November 1, 2018  
November 1, 2016–current
- November 2011 –  
December 2015  
April 2015
- December 2014
- September 2011 – August 2013
- September 1999 – August 2001
- January -- June 2002
- January 04 -- June 06
- January 03 -- March 2007
- Ph. D. thesis advisor of Carlo Bellavita
- Direction of a 4-year postdoctoral research fellowship Analytical and Geometrical Methods for Differential Equations and Quantum Field Theory (grant holder Dr. Davide Fermi)
- Direction of a 4-year postdoctoral research fellowship Analysis of conformally invariant differential operators on CR and Riemannian manifolds (grant holder Dr. Paolo Mastrolia).
- Ph. D. thesis advisor of Alessandro Monguzzi, title of Dissertation *On the regularity of singular integral operators on complex domains*
- Ph. D. thesis advisor of Marco Marchi, title of the dissertation *Rumin's Complex and Intrinsic Graphs in Carnot Groups*
- Direction of a 2-year postdoctoral research *Analysis and Geometry in Several Complex Variables* (grant holder Dr. Caterina Stoppato)
- Direction of a 2-year postdoctoral research on *Analysis of integral operators of convolution type* (grant holder Dr. Silvia Secco)
- Direction of a 6-month postdoctoral research *Boundary of holomorphic functions on convex domain of finite type in  $C^n$*  (grant holder Dr. Hercule Valencourt)
- Direction of a 16-month postdoctoral research *Extensions of the classical Paley-Wiener theorem to symmetric spaces* (grant holder Dr. Nils Andersen).
- Ph. D. thesis advisor of Donato A. Ciampa, title of the dissertation *On the regularity of the Kohn-Laplacian on CR manifolds*

## RECENT INVITED LECTURES

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- November 4, 2018 AMS Meeting, Special Session *Several Complex Variables and Partial Differential Equations*, Fayetteville, Arkansas
- October 1 – 4, 2018 CIRM Conference *Complex Approximation and Bounded Holomorphic Functions*, Levico Terme
- September 17 – 20, 2018 Joint meeting Italian and Polish Mathematicians, UMI-SIMAI-PTM, Session on *Harmonic analysis*, Wroclaw
- June 25 – 29, 2018 INdAM Conference *Geometric Aspects of Harmonic Analysis*, Cortona
- June 11 – 14, 2018 ACOTCA (*Advanced Courses in Operator Theory and Complex Analysis*), Bologna
- February 2 – 4, 2018 Workshop *Real and Complex Manifolds: Geometry, Topology and Harmonic Analysis*, Pisa
- November 6 – 10, 2017 Workshop *Analysis and geometry on pseudohermitian manifolds*, American Institute of Mathematics, San Jose
- September 12 – 16, 2016 INdAM Workshop *Complex Function Theory, Its Generalization and Applications*, Rome
- June 9 – 11, 2015 Conference ACOTCA (*Advanced Courses in Operator Theory and Complex Analysis*), Bologna
- March 3 – 6, 2015 Workshop *Real and Complex Manifolds: Geometry, Topology and Harmonic Analysis*, Pisa
- February 2015 Conference Real Sociedad Matematica Espanola, Granada
- September 9-13, July 2014 Conference IWOTA, Sept. 9-13, July 2014, Amsterdam, Holland.
- June 2014 *Workshop in Harmonic Analysis*, Kiel, Germany.
- June 2014 Conference First Joint Meeting of Italian and Spanish Mathematical Societies Bilbao, Spain.
- April 2014 Conference *Harmonic Analysis and Applications*, Pisa, Italy.
- October 2013 AMS Meeting, Special Session *Several Complex Variables*, Philadelphia

## CO-ORGANIZED CONFERENCES

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- September 23 – 29, 2019 INdAM Workshop (*New Trends in Complex and Fourier Analysis, and Operator Theory*), Rome
- May 29 – June 3, 2018 CIRM Conference *CR Geometry and PDE's VIII*, Levico Terme
- May 29-June 2, 2017 Conference *Hilbert Function Spaces 2017*, Gargnano
- May 30 – June 3, 2016 XXXVI Convegno Nazionale di Analisi Armonica, Gargnano
- May 20 – 24, 2013 Conference *Hilbert Function Spaces*, Gargnano
- June 7 – 11, 2010 XXX Convegno Nazionale di Analisi Armonica, Gargnano
- May 30- June 4, 2006 CIRM Conference *CR Geometry and PDE's II*, Levico Terme–
- June 7 –10 ,1999 XX Convegno Nazionale di Analisi Armonica, Aosta
- April 28 – May 3 1997 *Harmonic Analysis in Varenna*, European Union HCM. Fourier Analysis Network Varenna
- June 4 –7, 1994 XIV Convegno Nazionale di Analisi Armonica, Torino