

CURRICULUM VITAE
Costantino Medori

Personal information

Name: Costantino

Family name: Medori

Current Position

Full Professor of Geometry at the University of Parma (Italy).

Education

- M.A. Mathematics, University of Pisa (Italy, 1991).
- I.N.d.A.M. grant for starting researchers in Mathematics (Rome, academic year 1991/92).
- Ph.D. International School for Advanced Studies, Trieste (Italy, 1996).
- Post-Doc at the University of Pisa (1996/97).

Employment

- September 1997– September 2002: Assistant Professor at the University of Parma (Italy).
- October 2002–December 2015: Associate Professor at the University of Parma (Italy).
- December 2015–today: Full Professor at the University of Parma (Italy).

Visiting

April/September 1998: Ruhr-Universität (Bochum).

August 2006: University of Edinburgh.

November 2007: University of Edinburgh.

November 2011: Universidad de Zaragoza.

Teaching experience

- basic and advanced courses at the University of Parma.
- PhD courses at the University of Milan, Milano-Bicocca and Pavia.

Organizing activities

- *Summer School in Complex Geometry "Asymptotic aspects of complex and algebraic geometry"*, lezioni di J-P. Demailly, R. Lazarfeld, S. Zelditch (Milano Bicocca, 23–28 June 2014).
- *Incontro INdAM Cortona 2016, "Complex and Symplectic Geometry"* (Cortona, 12–18 June 2016).
- *Conferences 2018 CIRM-FBK, "Cohomology of Complex Manifolds and Special Structures"* (Levico, Trento, 19–22 June 2018)
- *Conferences 2020 CIRM-FBK, "Cohomology of Complex Manifolds and Special Structures"* (Levico, Trento, 29 June–3 July 2020 - postponed to 2021)

Some seminars

- *Parabolic homogeneous CR manifolds*, Centro di Ricerca Matematica "Ennio De Giorgi" (Pisa, January 2009).
- *On parabolic CR manifolds*, workshop (Luxenburg, March 2009).
- *On homogeneous and symmetric CR manifolds*, congress at the University of Milano-Bicocca (Milano, March 2011).
- *Quadriche CR con speciali proprietà di simmetria*, 19th UMI congress (Bologna, September 2011).
- *Geometria CR e algebre CR*, Workshop at Scuola Normale Superiore (Pisa, March 2013).
- *Sulle varietà CR debolmente nondegeneri* (Padova, November 2013).
- *The equivalence problem for five-dimensional Levi degenerate CR manifolds*, congress on "Geometric Structures on Riemannian Manifolds" (Bari, June 2015).
- *Ipersuperficie reali di \mathbf{C}^3 e connessioni di Cartan*, XX congresso U.M.I. (Siena, September 2015).
- *On Lie algebras of automorphisms of CR manifolds*, Workshop at Scuola Normale Superiore (Pisa, February 2018).

Participation to research projects

- member of several projects PRIN *Geometric Properties of Real and Complex Manifolds*.
- member of the project PRIN *Varietà reali e complesse: geometria, topologia e analisi armonica*.

Other Professional Activities

- member of the Teaching Committee of the Doctoral School at the University of Milan, Milano-Bicocca and Pavia.
- Referee Activities for the following journals:
Acta Appl. Math.; Acta Math. Hungar.; Adv. Geom.; Ann. Mat. Pura Appl.; Ann. Scuola Norm. Sup. Pisa (Cl. Sci.); Complex Var. Elliptic Equ.; Differential Geom. Appl.; Int. J. Geom. Methods Mod. Phys.; J. Math. Anal. Appl.; Rend. Circ. Mat. Palermo; Symmetry, Integrability and Geometry: Methods and Applications; Transformation Groups.

List of publications

1. Medori C., Nacinovich M.: *Pluriharmonic functions on abstract CR manifolds*, Ann. Mat. Pura Appl. (4) **170** (1996), 377–394.
2. Medori C., Nacinovich M.: *Levi-Tanaka algebras and homogeneous CR manifolds*, Compositio Math. **109** (1997), 195–250.
3. Medori C., Nacinovich M.: *Classification of semisimple Levi-Tanaka algebras*, Ann. Mat. Pura Appl. (4) **174** (1998), 285–349.
4. Medori C., Nacinovich M.: *Complete nondegenerate locally standard CR manifolds*, Math. Annalen **317** (2000), 509–526.
5. Medori C., Nacinovich M.: *Maximally homogeneous nondegenerate CR manifolds*, Adv. Geom. **1** (2001), 89–95.
6. Medori C., Nacinovich M.: *Standard CR manifolds of codimension 2*, Transf. Groups **6** (2001), 53–78.
7. Medori C., Nacinovich M.: *The Euler characteristic of standard CR manifolds*, Boll. Un. Mat. Ital. **4-B** (2001), 783–791.
8. Medori C., Tomassini A.: *Holomorphic isometries of twistor spaces*, J. Geom. Phys. **42** (2002), 19–27.
9. Medori C., Nacinovich M.: *The Levi-Malcev theorem for graded CR Lie algebras* in "Recent advances in Lie theory", Research and Exposition in Mathematics 25, Heldermann Verlag (Berlin), 2002, p.341–346. (ISBN: 3-88538-225-3)
10. Medori C., Nacinovich M.: *Algebras of infinitesimal CR automorphisms*, J. Algebra **287** (2005), 234–274.
11. Alekseevsky D., Medori C., Tomassini A.: *Maximally homogeneous para-CR manifolds*, Ann. Global Anal. Geom. **30** (2006), 1–27.
12. Altomani A., Medori C.: *On homogeneous CR manifolds and their CR algebras*, Int. J. Geom. Methods Mod. Phys. **3** (2006), 1199–1214.
13. Altomani A., Medori C., Nacinovich M.: *The CR structure of minimal orbits in complex flag manifolds*, J. Lie Theory **16** (2006), 483–530.
14. Alekseevsky D., Medori C.: *Bi-isotropic decompositions of semisimple Lie algebras and homogeneous bi-Lagrangian manifolds*, J. Algebra **313** (2007), 8–27.
15. Altomani A., Medori C., Nacinovich M.: *On the topology of minimal orbits in complex flag manifolds*, Tohoku Math. J. (2) **60** (2008), 403–422.
16. Alekseevsky D. V., Medori C., Tomassini A.: *Para-Kähler Einstein metrics on homogeneous manifolds*, C. R. Math. Acad. Sci. Paris **347** (2009), 69–72.
17. Alekseevskii D. V., Medori C., Tomassini A.: *Homogeneous para-Kählerian Einstein manifolds*, Russian Math. Surveys **64** (2009), 1–43.
18. Medori C., Tomassini A.: *Moduli space of CR-projective complex foliated tori*, Bull. Sci. Math. **133** (2009) 470–476.
19. Altomani A., Medori C., Nacinovich M.: *Orbits of real forms in complex flag manifolds*, Ann. Scuola Norm. Sup. Pisa Cl. Sci. (5) **9** (2010), 69–109.

20. Altomani A., Medori C., Nacinovich M.: *On homogeneous and symmetric CR manifolds*, Bollettino U.M.I. (9) **3** (2010), 221–265.
21. Alekseevsky D., Medori C., Tomassini A.: *Maximally homogeneous para-CR manifolds of semisimple type* in "Handbook of Pseudo-Riemannian Geometry and Supersymmetry", IRMA Lectures in Mathematics and Theoretical Physics, Vol. 16, EMS Zürich 2010, p.559–577. (ISBN: 978-3-03719-079-1)
22. Medori C., Tomassini A.: *On small deformations of paracomplex manifolds*, J. Noncommut. Geom. **5** (2011), 507–522.
23. Altomani A., Medori C.: *A characterization of CR quadrics with a symmetry property*, J. Geom. Anal. **22** (2012), 892–909.
24. Medori C., Tomassini A., Ugarte L.: *On balanced Hermitian structures on Lie groups*, Geometriae Dedicata **166** (2013), 233–250.
25. Altomani A., Medori C., Nacinovich M.: *Reductive compact homogeneous CR manifolds*, Transform. Groups **18** (2013), 289–328.
26. Medori C., Spiro A.: *The equivalence problem for 5-dimensional Levi degenerate CR manifolds*, Int. Math. Res. Not. IMRN 2014, no. 20, 5602–5647.
27. Hind R., Medori C., Tomassini A.: *On non-pure forms on almost complex manifolds*, Proc. Amer. Math. Soc. **142** (2014), 3909–3922.
28. Medori C., Spiro A.: *Structure equations of Levi degenerate CR hypersurfaces of uniform type*, Rend. Semin. Mat. Univ. Politec. Torino **73** (2015), 127–150.
29. Hind R., Medori C., Tomassini A.: *On taming and compatible symplectic forms*, J. Geom. Anal. **25** (2015), 2360–2374.
30. Bozzetti C., Medori C.: *Almost complex manifolds with non-degenerate torsion*, Int. J. Geom. Methods Mod. Phys. **14** (2017), 1750033-25pp.
31. *Complex and symplectic geometry*. Papers based on the INdAM Meeting held in Cortona, June 12–18, 2016. Edited by Daniele Angella, Costantino Medori and Adriano Tomassini. Springer INdAM Series, 21. Springer, 2017. viii+262 pp. ISBN: 978-3-319-62913-1; 978-3-319-62914-8.
32. Marini S., Medori C., Nacinovich M., Spiro A.: *On transitive contact and CR algebras*, Ann. Scuola Norm. Sup. Pisa Cl. Sci. (5) **20** (2020), 771–795.
33. Marini S., Medori C., Nacinovich M.: *On some classes of \mathbb{Z} -graded Lie algebras*, Abh. Math. Semin. Univ. Hamburg **90** (2020), 45–71.
34. Marini S., Medori C., Nacinovich M.: *\mathcal{L} -prolongations of graded Lie algebras*, Geom. Dedicata **208** (2020), 61–88.
35. Marini S., Medori C., Nacinovich M.: *Higher order Levi forms on homogeneous CR manifolds*, Math. Z. **299** (2021), 563–589. <https://doi.org/10.1007/s00209-020-02691-6>.

Parma, November 4, 2021

(Costantino Medori)