

CURRICULUM VITAE OF GIANDOMENICO BOFFI

ABRIDGED VERSION

SPECIALTIES

Pure, applied and computational aspects of commutative algebra and algebraic geometry
Cultural issues and popularization of the mathematical sciences

EDUCATION

PhD in Mathematics, Brandeis University, USA, May 1984
“Laurea” in Mathematics, University of Rome “La Sapienza”, Italy, March 1977

EMPLOYMENT

Retired since October 1, 2020
UNINT University of Rome, full professor of Algebra, February 2010 to September 2020
University of Chieti-Pescara, full professor of Algebra, November 2000 to February 2010
University of Trieste, full professor of Algebra, November 1996 to October 2000
University of Rome “Tor Vergata”, associate professor of Geometry, November 1990 to October 1996
University of Naples, associate professor of Geometry, April 1987 to October 1990
University of Rome “Tor Vergata”, tenured assistant professor of Algebra and Geometry, October 1984 to April 1987
Brandeis University, teaching and research assistant, academic years 1979-1980 to 1983-1984
University of Rome “La Sapienza”, teaching assistant, academic year 1978-1979
Istituto Geografico Militare, 2nd lieutenant in the Italian Army, October 1977 to December 1978

TEACHING EXPERIENCE

Advanced mathematical courses for graduate students in Mathematics and Physics (both in Italy and elsewhere)
Basic mathematical courses for students majoring in Mathematics, Physics, Engineering, Economics, and Business (both in Italy and elsewhere)
TV programs on elementary Mathematics (in Italy)

RESEARCH EXPERIENCE

Participation in and organization of international conferences (both in Italy and elsewhere)
Visiting professor in universities of several countries
International refereeing of papers and projects
Leadership of projects funded by national agencies
Membership in national selection committees for associate and full professors

OTHER EXPERIENCE

Co-creator and director of the Mediterranean Youth Mathematical Championship (MYMC), sponsored by several Italian institutions, six editions 2013-2019¹
Deputy Rector, UNINT University of Rome, 2010-2012
Chair, QUARI (university committee in charge of research quality assessment), University of Chieti-Pescara, 2008-2010
Chair, Department of Science, University of Chieti-Pescara, 2001-2010 [also responsible for the Ph. D. program of that department]

¹ The competition involved seventeen Mediterranean countries, each one of them sending a team having an equal number of (high school) boys and girls. Unlike the International Mathematical Olympiad, all members of a team worked together at solving the problems. The competition was discontinued due to the COVID-19 pandemic.

BIBLIOGRAPHY (SELECTED ITEMS)

- L'uso della parola ipotesi in matematica, in *Ipotesi* (a cura di S. Rondinara), Nuovo SEFIR / ilmiolibro self publishing, 2024, pp. 5-10. ISBN 979-12-22804-72-9.
- Controllo e matematica: le dimostrazioni, in *Controllo* (a cura di S. Rondinara), Nuovo SEFIR / ilmiolibro self publishing, 2023, pp. 15-20. ISBN 978-88-923-9773-6.
- Metodo e matematica, in *Metodo* (a cura di S. Rondinara), Nuovo SEFIR / ilmiolibro self publishing, 2022, pp. 5-15. ISBN 978-88-923-9038-6.
- *Temì scelti di matematica delle reti*, a book of lecture notes available on request (2020).
- Fidarsi degli algoritmi?, *Il Pensiero Storico*, **7** (2020), 225-242. ISSN 2531-3983 and ISBN 978-88-255-3620-1.
- Democrazia e matematica, in *Scienza, valori e democrazia* (a cura di P. Barrotta), Armando, Roma 2017, pp. 123-137. ISBN 978-88-6992-170-4.
- Border bases for lattice ideals, *J. Symbolic Comput.*, **79** (2017), 43-56 [joint work with A. Logar]. ISSN 0747-7171.
- Scienza, tecnica e *homo sapiens sapiens* – Riflessioni sulla matematica, in *Uomini, animali o macchine* (a cura di G. Picenardi), Edizioni Rosminiane, Stresa 2015, pp. 131-145. ISBN 978-88-8387-088-0.
- La matematica è vera, bella e buona, in *Scienza e valori. Il bello, il buono, il vero* (a cura di P. Barrotta), Armando, Roma 2014, pp. 179-195. ISBN 978-88-6677-855-4.
- Computing Groebner bases of pure binomial ideals via submodules of \mathbf{Z}^n , *J. Symbolic Comput.* **47** (2012), 1297-1308 [joint work with A. Logar]. ISSN 0747-7171.
- Alcune riflessioni sulla matematica, in *Scienze fisiche e matematiche – istanze epistemologiche e ontologiche* (a cura di R. Presilla e S. Rondinara), SEFIR / Città Nuova, Roma 2010, pp.15-28. ISBN 978-88-311-3504-7.
- On the Littlewood-Richardson rule for almost skew-shapes, *Proc. Amer. Math. Soc.* **136** (2008), 1155-1161 [joint work with D. Buchsbaum]. ISSN 0002-9939 and 1088-6826.
- *Threading Homology Through Algebra: Selected Patterns*, Oxford University Press, Oxford 2006 [joint work with D. Buchsbaum]. ISBN 978-0-19-852499-1.
- Lexicographic Groebner bases for transportation problems of format $rx3x3$, *J. Symbolic Comput.* **41** (2006), 336-356 [joint work with F. Rossi]. ISSN 0747-7171.
- Homotopy equivalence of two families of complexes, *Trans. Amer. Math. Soc.* **356** (2004), 3077-3107 [joint work with D. Buchsbaum]. ISSN 0002-9947 and 1088-6850.
- Computer algebra for fingerprint matching, in *Computational Science - ICCS 2003, Lecture Notes in Computer Science* **2657** (eds., P. M. Sloot *et al.*), Springer-Verlag, Heidelberg 2003, pp. 811-820 [joint work with S. Bistarelli and F. Rossi]. ISSN 0302-9743 and ISBN 978-3-540-40194-0.
- Koszul complexes and hyperdeterminants, *J. Alg.* **230** (2000), 68-88 [joint work with J. Weyman]. ISSN 0021-8693.
- On the Jacobian ideal of a trilinear form, *J. Alg.* **197** (1997), 521-534 [joint work with W. Bruns e A. Guerrieri]. ISSN 0021-8693.
- A Littlewood-Richardson filtration at roots of 1 for quantum deformations of skew Schur modules, *Tohoku Math. J.* **48** (1996), 303-316 [joint work with M. Varagnolo]. ISSN 0040-8735.
- On a subcomplex of the Schur complex, *J. Alg.* **176** (1995), 762-785 [joint work with M. Artale]. ISSN 0021-8693.
- On the resolutions of the powers of the Pfaffian ideal, *J. Alg.* **152** (1992), 463-491 [joint work with R. Sanchez]. ISSN 0021-8693.
- On some plethisms, *Adv. in Math.* **89** (1991), 107-126. ISSN 0001-8708.
- The universal form of the Littlewood-Richardson rule, *Adv. in Math.* **68** (1988), 40-63. ISSN 0001-8708.

October 30, 2024