

Curriculum Vitae

Name: Călin–Grigore Ambrozie

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Education

PhD in Mathematics 1995

Postuniversity specialization 1987

Faculty of Mathematics at University of Bucharest 1982-1986, g.p.a. 9.98 out of max 10

College 1978-81

Current positions

Institute of Mathematics of the Czech Academy, Žitná 25, 11567 Prague, Czech Republic

Math. Institute - Romanian Academy, P.O. Box 1-764, RO-014700 Bucharest, Romania

Visiting positions 2003 Prague, 2001 Saarbrücken, 1999 Nice, 1998 Prague, 1997 Lille

Research

Fields of interest: operator theory, operator methods in certain interpolation problems, multivariate problems of moments, analysis, spectral theory.

Publications: more than 30 original research papers, coauthor at 1 monograph Kluwer
105 citations (54 in last 5 years), by 76 authors, in 32 journals;

maximal impact factor of a journal: published papers 1.183 (Indiana Univ. Math. J.),
citing papers 1.770 (SIAM J. Control Optim.)

Teaching

occasionally: analysis on manifolds, operator theory, measure theory, calculus,
linear algebra, at the Faculty of Mathematics – University of Bucharest and
the Polytechnical Institute in Bucharest (Romanian/English/French)

Invited speaker at international conferences

Journées Lilloises de Theorie des Opérateurs 2000 Lille,

Journées de Theorie des Operateurs I CIRM Luminy–Marseille 1995,

Operator Theory Memorial Conference Sz. Nagy 1999 Szeged,

Joint India-AMS Mathematical Meeting 2003 Bangalore,

International Workshop on Operator Theory & Applications 2004 Newcastle

Other activities: grant IAA100190903 GAAV Czech Republic 2009-13 (Orbits, invariant subspaces and positivity in operator theory), member of the grant CNCSIS PN-II-ID-PCE 2011-3-0119 Romania 2011-14 (Multidimensional operator theory); co-organizer of the Section: Multivariable operator theory (together with R. Douglas and M. Dritschel, 16 participants) within IWOTA 22 (Intl. Workshop Operator Theory Appl.), Sevilla 2011

1 List of publications

1. C. Ambrozie, *Stability of the index of a Fredholm symmetrical pair*, Journal of Operator Theory 25/1991, p. 61–67.
2. C. Ambrozie, *On Fredholm index in Banach spaces*, Integral Equations and Op. Theory 25/1996, p. 1–34.
3. C. Ambrozie, *The Euler characteristic is stable under compact perturbations*, Proceedings of the Amer. Math. Soc., vol. 124, no. 7/1996, p. 2041–2050.
4. C. Ambrozie, *Contributions to the study of the perturbations of the Fredholm complexes* (Romanian), Studii & Cerc. Mat. tom 48 no. 3–4/1996, p. 155–244.
5. C. Ambrozie, *A stability result on mixed manifolds*, Revue Roum. de Mathématiques Pures et Appliquées, vol. 41, no. 7–8/1996, p. 439–449.
6. C. Ambrozie, *A note on pairs of subspaces*, Studii & Cerc. Matem., tom 47, no. 5–6/1995, p. 367–373.
7. C. Ambrozie, F.–H. Vasilescu, *Semi-Fredholm pairs*, in: Operator theory, operator algebras and related topics, Theta, Bucharest, 1997, 1–16.
8. C. Ambrozie, *Noncompactness measure invariance of the index*, Journal of Operator Theory, vol. 38, no. 2/1997, p. 225–242.
9. C. Ambrozie, *A note on moment problems*, in: Operator theoretic methods, Proc. 17th Op. Theory Conf., Theta, Bucharest, 2000, p. 21–27.
10. C. Ambrozie, V. Müller, *Duality in quotient Banach spaces*, Revue Roum. de Math. Pures et Appl., vol. 45, no. 4/2000, p. 555–563.
11. C. Ambrozie, M. Engliš and V. Müller, *Operator tuples and analytic models over general domains in C^n* , Journal of Operator Theory, 47:2/2002, 287–302.
12. C. Ambrozie, D. Timotin, *On an intertwining lifting theorem for certain reproducing kernel Hilbert spaces*, Integral Eq. Op. Theory, 42:4/2002, 373–384.
13. C. Ambrozie, D. Timotin, *A von Neumann type inequality over certain domains in C^n* , Proc. Amer. Math. Soc., 131:3/2003, p. 859–869.
14. C. Ambrozie, F.–H. Vasilescu, *Banach space complexes*, book, Kluwer Academic Publishers, MAIA Series, vol. 334/1995, 212 pp.
15. C. Ambrozie, *Remarks on the operator-valued interpolation for bounded analytic functions in several variables*, Indiana Univ. Math. Journal, 53:6/2004, 1551–1578.
16. C. Ambrozie, F.–H. Vasilescu, *Operator theoretic Positivstellensätze*, Zeitschrift Analysis und Anwen., 22:2/2003, 299–314.
17. C. Ambrozie, *A remark on positive-definite operator-valued functions*, Spectral Theory and Its Applications, Theta 2003, 27–44.
18. C. Ambrozie, *Maximum entropy and moment problems*, Real Analysis Exchanges, vol. 29, no.2/2003–2004, 607–628.

19. C. Ambrozie, *Representing densities of sequences of moments*, Hokkaido Mathematical Journal, XXXIII:3/2004, 657-673.
20. C. Ambrozie, O. Olteanu, *Sandwich theorems and moment problems*, Revue Roum. de Mathématiques, vol. 49:3/2004, 189-210.
21. C. Ambrozie, V. Müller, *Invariant subspaces for polynomially bounded operators*, J. Functional Analysis, 213/2004, 321-345.
22. C. Ambrozie, O. Olteanu, *A sandwich theorem for functions defined on unbounded finite-simplicial sets*, An. Univ. Craiova Ser. Mat. Inform., 32/2005, 75-82.
23. C. Ambrozie, J. Eschmeier, *A commutant lifting result on analytic polyhedra*, Banach Center Publications, 67/2005, 83-108.
24. C. Ambrozie, *On a completion of prehilbertian spaces*, Portugaliae Mathematica, 62:1/2005.
25. C. Ambrozie, *Finding positive matrices subject to linear restrictions*, Linear Alg. and Applications, 426:2-3/2007, 716-728.
26. C. Ambrozie, *Functional commutant lifting and interpolation on generalized analytic polyhedra*, Houston J. Mathematics, 34:2/2008, 518-544.
27. C. Ambrozie, V. Müller, *Dominant Taylor spectrum and invariant subspaces*, J. Operator Theory, 61:1/2009, 63-73.
28. C. Ambrozie, B. Kuzma, V. Müller, *An upper bound on the dimension of the reflexivity closure*, Proc. Amer. Math. Soc., 138:5/2010, 1721-1731.
29. C. Ambrozie, *Remarks on Bishop - type operators*, Annals of Univ. of Bucharest (Math. Series), LIX/2010, 3-14.
30. C. Ambrozie, *A Riesz-Haviland type result for truncated moment problems with solutions in L^1* , J. Operator Theory, accepted in 2012.
31. C. Ambrozie, *On a variational approach to truncated problems of moments*, Math. Bohemica, 138:1/2013, 105-112.
32. C. Ambrozie, *Multivariate truncated moments problems and maximum entropy*, Anal. Math. Physics, published online 2013,
<http://link.springer.com/article/10.1007/s13324-012-0052-3> .

Selected citations:

- McCarthy, J.E., Putinar, M., Positivity aspects of the Fantappiè transform, 2005 Journal d'Analyse Mathématique 97, pp. 57-82
- Cites:* C. Ambrozie, M. Engliš and V. Müller, Operator tuples and analytic models over general domains in C^n , Journal of Operator Theory, 47:2/2002, 287-302.
- Dritschel, Michael A.; Marcantognini, Stefania; McCullough, Scott, Interpolation in semigroupoid algebras. J. Reine Angew. Math. 606 (2007), 1-40
- Cites:* C. Ambrozie, Remarks on the operator-valued interpolation for bounded analytic functions in several variables, Indiana Univ. Math. Journal, 53:6/2004, 1551-1578.
- Eschmeier J., Fredholm spectrum and growth of cohomology groups, Studia Math., 186 (2008), 237-249.
- Cites:* Ambrozie C., Müller V., Dominant Taylor spectrum and invariant subspaces, J. Operator Theory 61:1 (2009), pag. 63 – 73.
- Ball J., Kalyuzhnyi D., Conservative dilations of dissipative multidimensional systems: The commutative and non-commutative settings, Multidimensional Systems and Signal Processing, 19:1(2008), 79-122.
- Cites:* Ambrozie C., Timotin D., A von Neumann type inequality for certain domains in C^n , Proc. Amer. Math. Soc., 131:3 (2003), 859-869.
- Agler J., Young N., The magic functions and automorphisms of a domain, Complex Analysis and Operator Theory, 2:3(2008), 383-404.
- Cites:* Ambrozie C., Engliš M., Müller V., Operator tuples and analytic models over general domains in C^n , J. Operator Theory 47 (2002), 287-302.
- Cassier, G., Esterle. J., Factorisation spatiale, J. Operator Theory 62:1 (2009), pag. 111-123
- Cites:* Ambrozie, C.-G., Müller, V., Invariant subspaces for polynomially bounded operators, J. Functional Analysis 213 (2004), pag. 321-345
- Mittal, M., Paulsen, V.I., Operator algebras of functions, J. Funct. Anal. 258:9 (2010), 3195-3225
- Cites:* Ambrozie, C.G., Timotin, D., A von Neumann type inequality for certain domains in C^n , Proc. Amer. Math. Soc. 131:11 (2003), 859-869
- Harmonic Analysis of Operators on Hilbert Space, Second Edition Author(s): Sz-Nagy, Bela; Foias, Ciprian; Bercovici, Hari; et al. Book Series: Universitext DOI: 10.1007/978-1-4419-6094-8 Published: 2010 Publisher: SPRINGER; 233 SPRING STREET, NEW YORK, NY 10013, UNITED STATES
- Cites:* Ambrozie C.-G., Engliš M., Müller V., Operator tuples and analytic models over general domains in C^n , Journal of Operator Theory, 47:2(2002), pp. 287-302.
- Ball, Joseph A.; Groenewald, Gilbert; Malakorn, Tanit Structured noncommutative

multidimensional linear systems. SIAM J. Control Optim. 44 (2005), no. 4, 1474–1528 (electronic)

Cites: C. Ambrozie, D. Timotin, A von Neumann type inequality over certain domains in C^n , Proc. Amer. Math. Soc., 131:3/2003, p. 859–869.

- Douglas, R.G., Misra, G., Sarkar, J., Contractive Hilbert modules and their dilations, Israel Journal of Mathematics 187:1(2012), pp. 141-165

Cites: Ambrozie C.-G., Englis M., Muller V., Operator tuples and analytic models over general domains in C^n , Journal of Operator Theory, 47:2(2002), pp. 287-302.

Selected lectures:

- Workshop on Multivariable Operator Theory, BIRS - Banff, Canada, 15-20.08.2010, talk: Remarks on truncated moments problems
- IWOTA (International Workshop in Operator Theory and Applications), September 2009, Guanajuato, Mexico, talk: Remarks on joint invariant subspaces
- 6th LAW (Linear Algebra Workshop), Kranjska Gora, Slovenia, May 25 - June 1st, 2011, talk: Observations on moments problems
- University of Newcastle, UK, November 2009, talk: Results of joint invariant subspaces and reflexivity for commuting n -tuples
- 22nd IWOTA, Sevilla, Spain, July 3 - 9, 2011, talk: A variational approach to multidimensional truncated moments problems
- Operator Theory and Related Topics, 31.05-04.06.2010, University of Lille 1, talk: An application of generalized spectral operators
- 22th International Conference in Operator Theory, Timisoara, Romania, 3-8.07.2008, talk: Remarks on Bishop operators
- 5th LAW, Kranjska Gora, Slovenia, 27.05-05.06.2008, talk: Remarks on weighted composition operators,
- 13th Finnish-Romanian Seminar on Complex Analysis and Related Topics, 26-30.06.2012, Pitesti, Romania, talk: Solutions to moments problems by differential equations
- University of Ljubljana, Slovenia, September 2012, talk: Certain results in the multivariate truncated problem of moments