

Curriculum Vitae

Mihai Putinar

Education:

1984 Ph.D., University of Bucharest, Romania.

Thesis: Multivariable spectral theory; advisor: Constantin Banica,

1980 M.S., University of Bucharest, Romania.

Appointments:

2014 - present, Professor of Pure Mathematics, Newcastle University, UK.

1997 - present, Professor, Department of Mathematics, University of California, Santa Barbara.

1998 - present, Member of the Center for Control Engineering and Computation, U.C. Santa Barbara.

2005 - present, Honorary Member, Institute of Mathematics of the Romanian Academy of Sciences, Bucharest, Romania.

2013 - 2015, Professor, Nanyang Technological University, Singapore.

1991 - 1996 Assistant/Associate Professor, University of California, Riverside

1980 - 1990 Scientific Researcher, Institute of Mathematics of the Romanian Academy (former Department of Mathematics- INCREST).

Sabbaticals and Visiting Positions:

2016-Summer, Visiting Professor, Univ. Paul Sabatier, Toulouse, France.

2015-Fall, Visiting Professor, University of Konstanz, Germany.

2013-Summer, Visiting Fellow, Isaac Newton Institute, Cambridge, UK.

2013-Summer, Visiting Professor, Dortmund Technological University, Germany.

2013-Summer, Professor in Residence, Center for Advanced Study, Norwegian Academy of Sciences.

2011-Fall, Visiting Scholar, Mittag-Leffler Institute, Stockholm, Sweden.

2008-Spring, Professor in residence, Los Alamos Laboratories, New Mexico.

2007-Fall, Visiting researcher, LAAS-CNRS, Toulouse, France.

2007-Winter, Professor in residence, Institute for Mathematics and Its Applications, Minneapolis.

2005-Fall, Visiting Professor, University of Cyprus, Nicosia.

2005-Summer, Visiting Professor, University of Konstanz, Germany.

2002- Summer, Visiting Professor, Ben Gurion University of the Negev, Israel.

2000 - Summer, Visiting Professor, Universite de Lille I, France.

2000 - Spring, Visiting Professor, The Royal Institute of Technology, Stockholm, Sweden.

1997 - Summer, Visiting Professor, Saarland University, Saarbrücken, Germany.

Mihai Putinar 1995 Visiting Scholar, Mathematical Sciences Research Institute, Berkeley.

1992 Visiting Scholar, Muenster University, Germany.

1991 Visiting Associate Professor, University of Kansas, Lawrence .

1990 Visiting Professor, University of Iowa, Iowa City.

Prizes and Awards:

2013 Gambrinus Fellow

2011 Romanian National Order of Merit with the rank of Knight

2007 The Horace Mochizuki Teaching Award - University of California at Santa Barbara.

1991, 2015 Humboldt Fellowship

1987 Simion Stoilow Prize of the Romanian Academy

1977 First Prize at the Student Balkaniad of Mathematics- Belgrade (Yugoslavia).

Grants:

2016 International Centre Math. Sci. Edinburgh: research in pairs

2013 Nanyang Technological University Research Grant.

1992, 1995, 1998, 2000, 2002, 2003, 2007, 2009, 2010 National Science Foundation (USA) Grants.

2005, 2008, 2011, 2016 Mathematics Research Institute (Oberwolfach): research in pairs programme

2006 Department of Energy-Los Alamos Laboratory Research Grant (co-PI)

1996, 2000 Natural Science Research Council (Sweden) Grants (co-PI)

1990 International Mathematical Union Grant.

Professional service:

2017 Co-organizer of the workshop: "Herglotz-Nevanlinna functions and their applications", Mittag-Leffler Inst. Stockholm, Sweden.

2016 Co-organizer of the workshop "Bounded analytic interpolation in passive electromagnetics and composite materials", SIAM conference, Philadelphia.

2016 Co-organizer of the Mini-workshop "Applied Koopmanism", Oberwolfach, Germany.

2015 Co-organizer of the Spring School in Several Complex Variables, Newcastle University, UK.

2015 Co-organizer of the workshop "Multivariate Operator Theory", Banff, Canada.

2014 Co-organizer of the minicourse: "Polynomial optimization and control", Mathematical Theory of Networks and Control, Groningen, Netherlands.

2013 Co-organizer of the Nanyang Technological University-Seoul National

University workshop on mathematics and its applications, Singapore.
2013-14 Co-organizer of the semester "The inverse moment problem",
Institute of Mathematical Sciences, Singapore.
2013 Co-organizer of the workshop "Structured Function Systems and
Applications", Oberwolfach, Germany.
2012 Co-organizer of the Special Section "Applications of Complex Analysis
to Mathematical Physics", Amer. Math. Soc. Meeting, Tampa, Florida.
2010 Co-organizer of the workshop "Integrable and stochastic Laplacian
growth in modern mathematical physics", Ban Center, Canada.
2010 Co-organizer of the workshop "Multivariate Operator Theory", Banff
Center, Canada.
2010-2012 Organizer of the focused research group: "Geometry of
Polynomials", Amer. Inst. Math., Palo Alto.
2009 Co-organizer of the conference " Multivariate operator theory and
applications", Fields Institute, Toronto, Canada.
2008-2010 Co-organizer of the focused research group activity "Hausdorff
geometry of complex polynomials, positive charge distributions and normal
operators", Ban Center, Canada, and the American Institute of
Mathematics, Palo Alto.
2007 Co-organizer of the workshop "Laplacian growth and quantum physics",
Banff Center, Canada.
2007 Co-organizer of the workshop "Optimization and Control", Inst. Math.
and Appl., Minneapolis.
2006 Co-organizer of the workshop "Positive polynomials and applications",
Mathematical Theory of Networks and Systems XVII, Kyoto, Japan.
2005 Co-organizer of the workshop "Theory and Algorithms of Linear
Matrix Inequalities", Amer. Inst. Math., Palo Alto, CA.
Mihai Putinar 2005 Co-organizer of the session "Function Theory", Amer. Math. Soc.
Meeting, Santa Barbara.
2004 Co-organizer of the session "Semialgebraic geometry, operator theory
and applications", Mathematical Theory of Networks and Systems XVI,
University of Leuven, Belgium.
2003 Organizer of the conference "Quadrature Domains and Applications",
Santa Barbara, CA.
1995 Co-organizer of the semester "Holomorphic spaces" at the Mathematical
Sciences Research Institute, Berkeley, CA.

Editorial Activity:

2013 - Editor in Chief of the journals *Mathematical Reports* and *Revue
Roumaine de Mathematiques Pures et Appliquees* published by the Romanian
Academy of Sciences.

Associate Editor for the following journals and book series:

Journal of Operator Theory published by Theta Foundation
Integral Equations and Operator Theory published by Birkhuser
Operator Theory: Advances and Applications published by Birkhuser
Complex Analysis and Operator Theory published by Birkhuser
Analysis and Mathematical Physics published by Birkhuser
The International Journal of Mathematics and Mathematical Sciences
published by Hindawi.

2001-2013 Associate Editor for *Journal of Mathematical Analysis and Applications* (Elsevier)
1987-1995 Editor of *Mathematica Balkanica*

Students:

PhD students: Chiyu He, Jim Gleason, Gaemus Collins, Zhen He,
Roger Roybal, Brian Sittinger, Richard Spjut, Charles Martin,
Martin Harrison.

PostDocs supervised: Roland Wolff (Germany), Eric Reolon
(Germany), Sebastian Sandberg (Sweden), Stephan R. Garcia (US).
Mentored undergraduate students: Jeff Danciger, Simon
Weinstein-Salzedo, Akshat Kumar.

Recent invited talks:

November 2016: The legacy of A. Markov in moment problems, U. Delaware.
October 2016: Neumann-Poincare operator on a domain with corners, U. C. Berkeley.
September 2016: Positivity certificates, Vorace meeting. Toulouse, France.
September 2016: Poincare variational principle in potential theory, Colloquium, Inst. Math.
Toulouse, France.
June 2016: The geometry of critical points of complex polynomials, Junior Colloquium, Univ.
Vienna, Austria.
June 2016: Schoenberg positivity theorem in fixed dimension, Colloquium, Univ. Vienna,
Austria.
June 2016: Neumann-Poincare operator on a domain with corners, Colloquium, Univ.
Autonoma, Madrid.
May 2016: Phase regularization of moment sequences, SIAM meeting, Philadelphia.
February 2016: The entropy method in moment problems, Oberwolfach workshop, Germany.
October 2015: Quillen property of real algebraic varieties, Colloquium, University of Koeln,
Germany.

October 2015: Matrix positivity preservers in fixed dimension, University of Stuttgart, Germany.

October 2015: Schoenberg positivity theorem in fixed dimension, Seminar, University of Konstanz, Germany.

October 2015: Markov legacy in inverse problems, ETH Zurich, Switzerland.

July 2015: Lectures on the Neumann-Poincare operator, Inha University, S. Korea.

July 2015: Matrix positivity preservers in fixed dimension, Second International Workshop and the Neumann-Poincare operator and related topics, KAIST, Daejeon, S. Korea.

May 2015: Schoenberg positivity theorem in fixed dimension, Colloquium, U.C. San Diego.

February 2015: Quillen property of real algebraic varieties, Colloquium, Univ. Wisconsin, Madison.

November 2014: Hermitian sums of squares, Amer. Inst. Mat., Palo Alto, CA.

November 2014: Apolarity, Graduate Colloquium, UC Santa Barbara.

November 2014: A class of 2D orthogonal polynomials, UCLA-CalTech Analysis and PDE Seminar.

July 2014: Moment problems and positive polynomials, Mathematical Theory of Networks and Systems, Groningen.

May 2014: Hermitian complexity of real algebraic varieties, US-Uzbekistan Mathematical Analysis Conference, Fullerton, California.

March 2014: Polynomial inequalities and numerical range, ARAG workshop, Aalto University, Helsinki, Finland.

November 2013: Moment problems: old and new, Inst. Math. Sci., Singapore.

September 2013: Recent Advances in Global Polynomial Optimization, University of Bucharest, Romania.

July 2013, Lecture: Hermitian sums of squares, Newton Institute, Cambridge, U.K.

July 2013, Seminar: The proof of Kadison-Singer conjecture, Technical University Dortmund, Germany.

July 2013, Public Lecture: From raindrops and oil spills to the shapes of nature, Technical University Dortmund, Germany.

June 2013, Communication: Rank-one perturbations of normal matrices, Amer. Math. Society and Romanian Math. Society joint Meeting, Alba Iulia, Romania.