

## LIST OF PUBLICATIONS

MIHAI PUTINAR

## MONOGRAPHS

(with M. Martin) *Lectures on Hyponormal Operators*, Birkhäuser Verlag, Basel-Boston-Berlin, 1989.

(with J. Eschmeier) *Spectral Decompositions and Analytic Sheaves*, London Math. Monographs Vol. 10, Clarendon Press, Oxford, 1996.

## EDITED VOLUMES

*Operator algebras and operator theory* (W. B. Arveson, A. S. Mischenko, M. Putinar, M. Rieffel, S. Stratila, eds.), Pitman Res. Notes Math. vol 271-272, Longman Sci. and Techn. Harlow, 1992.

*Quadrature Domains and Their Applications, The Harold S. Shapiro Anniversary Volume* (P.Ebenfelt, B.Gustafsson, D.Khavinson, M. Putinar, eds.) Birkhäuser, Basel, 2005.

*Operator Theory, Structured Matrices, and Dilations* (M. Bakonyi, A. Gheondea, M. Putinar, J. Rovnyak, eds.), Theta, Bucharest, 2007.

*Growing interfaces Physics and Mathematics of Growing Interfaces - In honor of Stan Richardson's discoveries in Laplacian Growth and related free boundary problems* (M. Mineev, M. Putinar, L. Sander, A. Zabrodin, eds.), Physica D **235**(2007).

*Emerging Applications of Algebraic Geometry* (M. Putinar, S. Sullivant, eds. ), The IMA Volumes in Mathematics and its Applications, vol. **149**, Springer, Berlin, 2008.

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 ALL PUBLICATIONS, IN INVERSE CHRONOLOGICAL ORDER

## SUMBMITTED WORKS

(with K. Schmüdgen), *Multivariate determinateness*

(with D. Khavinson, M. Mineev), *Planar elliptic growth*

(with F. Jafari), *Extremal positive pluriharmonic functions on Euclidean balls*

## IN PRESS

(with V. A. Prokhorov) *Compact Hankel forms on planar domains* Complex Analysis Operator Theory, to appear.

(with J. W. Helton, S. McCullough, V. Vinnikov) *Convex matrix inequalities versus linear matrix inequalities*, IEEE Trans. Automat. Control, Special Issue on Positive Polynomials in Control, to

appear.

(with S. Kuhlmann) *Positive polynomials on projective limits of real algebraic varieties*, Bull. Soc. Math. France, to appear.

(with S. Garcia) *Interpolation and complex symmetry*, Tohoku Math. Journal, to appear

(with M. Mineev, R. Teodorescu), *Random Matrix Theory in 2D, Laplacian Growth and Operator Theory*, J. of Phys. A: Math. Gen., to appear, (arXiv:0805.0049), 88pp.

(with J.W. Helton and J.-B. Lasserre) *Multivariate moment matrices with zeros in their inverse*, Ann. Probability, DOI 10.1214107-AOP365, to appear.

2008

1. (with B. Gustafsson, E. Saff, N. Stylianopoulos) *Les polynômes orthogonaux de Bergman sur un archipel*, C. R. Acad. Sci. Paris, Ser. I **346**(2008), 499-502.

2. (with J. Danciger, S. Garcia) *Variational principles for symmetric bilinear forms*, Math. Nachrichten **281**(2008), 786-802.

3. (with J. d'Angelo) *Polynomial optimization on odd-dimensional spheres*, in vol. *Emerging Applications of Algebraic Geometry*, The IMA Volumes in Mathematics and its Applications, vol. **149**, Springer, Berlin, 2008, pp. 1-16.

4. (with M. de Oliveira, J. W. Helton, S. McCullough), *Engineering systems and free real algebraic geometry*, in vol. *Emerging Applications of Algebraic Geometry*, The IMA Volumes in Mathematics and its Applications, vol. **149**, Springer, Berlin, 2008, pp. 17-63.

2007

1. (with B. Gustafsson) *Analytic continuation of the exponential transform from convex cavities*, J. Math. Analysis Appl. **328**(2007), 995-1006.

2. (with J.W. Helton and S. A. McCullough) *Strong majorization in a free \*-algebra*, Math. Zeitschrift **255**(2007), 579-596.

3. (with S. Garcia) *Complex symmetric operators and applications. II*, Trans. Amer. Math. Soc. **359** (2007), 3913-3931.

4. (with J.W. Helton) *Positive Polynomials in Scalar and Matrix Variables, the Spectral Theorem and Optimization*, in vol. *Operator Theory, Structured Matrices, and Dilations*, Theta, Bucharest, June 2007, pp 229-306.

5. M. Bakonyi, A. Gheondea, M. Putinar, J. Rovnyak, eds., *Operator Theory, Structured Matrices, and Dilations*, Theta, Bucharest, 2007.

6. (with D. Khavinson and H.S. Shapiro) *On Poincaré's variational problem in potential theory*, Arch. Rational Mech. Appl. **185:1**(2007), 143-184.

7. (with S. Kuhlmann) *Positive polynomials on fibre products*, C. R. Acad. Sci. Paris, Ser. I **344**(2007), 681-684.

8. (with G. Putinar) *Reconstruction of algebraic sets from dynamic data*, Ann. Fac. Sci. Toulouse vol. **XIV:3**(2007), 647-664.

9. (with N. Stylianopoulos) *Finite term relations for planar orthogonal polynomials*, Complex Analysis and Operator **1**(2007), 447-456.

10. (with B. Gustafsson) *Topics on quadrature domains*, Physica D **235**(2007), 90-100.

11. M. Mineev, M. Putinar, L. Sander, A. Zabrodin, eds., *Physics and Mathematics of Growing Interfaces - In honor of Stan Richardsons discoveries in Laplacian Growth and related free boundary problems*, Preface, Physica D **235**(2007), vii-x.

## 2006

1. (with S. Garcia) *Complex symmetric operators and applications*, Trans. Amer. Math. Soc. **358**(2006), 1285-1315.

2. (with E. Prodan and S. Garcia) *Norm estimates of complex symmetric operators applied to quantum systems*, J. Physics A: Math. Gen. **39**(2006), 389-400.

3. (with J.W.Helton and S. McCullough) *Matrix representation for positive non-commutative polynomials*, Positivity **10**(2006), 145-163.

4. *On hermitian polynomial optimization*, Arch. Math. **87**(2006), 41-51.

5. *Uniqueness in multivariate moment problems*, Proc. 17-th. Intern. Symp. Mathematical Theory of Networks and Systems, Kyoto 2006, (Y. Yamamoto, ed.), 667-671.

6. (with C. Scheiderer) *Multivariate moment problems: geometry and indeterminateness*, Ann. Scuola Norm. Sup. Pisa Cl. Sci. (5), vol. **V** (2006), 1-21.

7. (with C. Banica) *On the classification of complex vector bundles of stable rank*, Proc. Indian Acad. Sci. (Math. Sci.) **116**(2006), 1-20.

8. (with G. Putinar) *Restriction eigenfunctions in  $\mathbf{C}^n$* , Electronic Trans. Numerical Analysis **25**(2006), 393-408.

9. (with Linda Patton) *On multivariable Fejér inequalities*, Acta Sci. Math (Szeged) **72**(2006), 129-134.

## 2005

1. *Notes on generalized lemniscates*, Operator Theory: Adv. Appl. **157**(2005), 243-266.

2. ((with J.W.Helton and S. McCullough) *Non-negative hereditary polynomials in a free  $*$ -algebra*, Math. Zeitschrift **250**(2005), 515-522.

3. ( co-editor with P.Ebenfelt, B.Gustafsson, D.Khavinson), *Quadrature Domains and Their Applications, The Harold S. Shapiro Anniversary Volume*, Birkhäuser, Basel, 2005.

4. (with B. Gustafsson) *Linear analysis of quadrature domains. IV, Quadrature Domains and Applications, The Harold S. Shapiro Anniversary Volume* (P. Ebenfelt et al. eds.), Operator Theory: Advances Appl. vol. **156**, Birkhäuser, Basel, 2005, pp. 147-168.

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2. (with F.-H. Vasilescu), *A uniqueness criterion in the multivariate moment problem*, Math. Scand. **92**(2003), 295-300.

3. (with B. Gustafsson and H.S.Shapiro) *Restriction operators, balayage and doubly orthogonal systems of analytic functions*, J. Funct. Analysis **199**(2003), 332-378.

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## 2002

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5. (*Featured review*) Dual piecewise analytic bundle shift models of linear operators, by D.V. Yakubovich, Math. Reviews Amer. Math. Soc. **97b:47024**.

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