

PUBLICATIONS

(1) Monographs, Lecture Notes

(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.

(with B. Gustafsson) *Hyponormal Quantization of Planar Domains. Exponential Transform in Two Dimensions*, Lect. Notes Math. vol. 2199, Springer, Berlin, 2017.

(2) Edited volumes

Analysis of Operators on Function Spaces, The Serguei Shimorin memorial Volume (A. Aleman, H. Hedenmalm, D. Khavinson, M. Putinar, editors), Trends in Math., Birkhauser, Switzerland, 2019.

Mathematical methods in systems, optimization and control (H. Dym, M. de Oliveira, M. Putinar, editors), Operator Theory: Advances and Applications, Birkhäuser, Basel, 2012.

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Björn Gustafsson Festschrift (D. Crowdy, M. Mineev-Weinstein, M. Putinar, eds.), Complex Analysis and Operator Theory vol. 3-2, 2009.

Emerging Applications of Algebraic Geometry (M. Putinar, S. Sullivant, eds.), The IMA Volumes in Mathematics and its Applications, vol. 149, Springer, Berlin, 2009.

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

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All publications, in inverse chronological order

Submitted

(with D. Yakubovich) *Spectral dissection of finite rank perturbations of normal operators*

Spectral analysis of 2D outlier layout

(with Pham Viet Hai) *Complex symmetric evolution equations*

(with B. Beckermann, E. B. Saff, N. Stylianopoulos) *Perturbations of Christoffel-Darboux kernels. I: detection of outliers*

(with A. Belton, D. Guillot, A. Khare) *Total positivity preservers*

(with A. Belton, D. Guillot, A. Khare) *Moment-sequence transforms*

Accepted for publication

(with A. Belton, D. Guillot, A. Khare) *A panorama of positivity II: Fixed-dimension, in vol. Complex Analysis and Spectral Theory* (G.Dales, D.Khavinson, J. Masreghi, eds.) Contemporary Math. CRM Proceedings, Amer. Math. Soc., Providence, R.I. 2020.

(with B. Gustafsson) *Finite term relations for exponential orthogonal polynomials*, Math. Model. Natural Phenomena

(with H. Ammari, A. Steenkamp, F. Triki) *Reconstruction of domains with algebraic boundaries from generalized polarization tensors*, SIAM J. Math. Imaging

(with E. Pauwels, J. B. Lasserre), *Data analysis from empirical moments and Christoffel function*, Found. Comp. Math.

2019

1. (with H. Ammari, M. Ruiz, S. Yu, H. Zhang) *Shape reconstruction of nanoparticles from their associated plasmonic resonances*, J. Math. Pures Appl. 122(2019), 23-48.

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3. (with J.B. Lasserre) *Positive functionals and Hessenberg matrices*, Proc. Amer. Math. Soc. 147(2019), 1097- 1108.
4. (with B. Gustafsson) *A field theoretic operator model and Cowen-Douglas class*, Banach J. Math. Analysis 13(2019), 338-358.
5. (with S. Shimorin) *Positive integral kernels for polar derivatives*, in vol. Analysis of Operators on Function Spaces, The Serguei Shimorin memorial Volume (A. Aleman, H. Hedenmalm, D. Khavinson, M. Putinar, editors), Trends in Math., Birkhauser, Switzerland, pp. 251-258.
6. (with A. Belton, D. Guillot, A. Khare) *A panorama of positivity I: Free-dimension*, in vol. Analysis of Operators on Function Spaces, The Serguei Shimorin memorial Volume (A. Aleman, H. Hedenmalm, D. Khavinson, M. Putinar, editors), Trends in Math., Birkhauser, Switzerland, pp. 117-166.
7. (with A. Belton, D. Guillot, A. Khare) *Simultaneous kernels of matrix Hadamard powers*, Linear Alg. Appl. 576(2019), 142-157.

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2. (with J. Tener) *Singular values of weighted composition operators and second quantization*, Int. Mat. Research Notes 20(2018), 6426–6441.
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