

Contents

Introduction	vii
Seconde composition de mathématiques	xi
Second Composition in Mathematics	xv
Publications of Julius Borcea	xix
<i>A. Aleman and A. Sarafoleanu</i>	
Commuting Linear Differential Operators and Hankel Matrices	1
<i>M. Andersson and E. Wulcan</i>	
Variants of the Effective Nullstellensatz and Residue Calculus	17
<i>B. Berndtsson</i>	
An Extension Problem for Convex Functions	33
<i>J.-E. Björk, J. Borcea and R. Bøgvad</i>	
Subharmonic Configurations and Algebraic Cauchy Transforms of Probability Measures	39
<i>P. Brändén, J. Haglund, M. Visontai and D.G. Wagner</i>	
Proof of the Monotone Column Permanent Conjecture	63
<i>M. Brešar and I. Klep</i>	
Tracial Nullstellensätze	79
<i>G. Csordas</i>	
Iterated Turán Inequalities and a Conjecture of P. Brändén	103
<i>K. Deschout and A.B.J. Kuijlaars</i>	
Double Scaling Limit for Modified Jacobi-Angelisco Polynomials	115
<i>P. Duren and H.S. Shapiro</i>	
Constrained Approximation via Functional Analysis	163
<i>A. Eremenko and A. Gabrielov</i>	
An Elementary Proof of the B. and M. Shapiro Conjecture for Rational Functions	167

<i>S. Friedland and U.N. Peled</i>	
The Pressure, Densities and First-order Phase Transitions Associated with Multidimensional SOFT	179
<i>M. Gekhtman and O. Korovnichenko</i>	
Matrix Weyl Functions and Non-Abelian Coxeter-Toda Lattices	221
<i>B. Gustafsson and V. Tkachev</i>	
On the Exponential Transform of Lemniscates	239
<i>M. Ismail and P. Simeonov</i>	
On a Family of Positive Linear Integral Operators	259
<i>C.R. Johnson, C. Marijuán, M. Pisonero and O. Walch</i>	
Monomial Inequalities for Newton Coefficients and Determinantal Inequalities for p-Newton Matrices	275
<i>D. Khavinson, R. Pereira, M. Putinar, E.B. Saff and S. Shimorin</i>	
Borcea's Variance Conjectures on the Critical Points of Polynomials	283
<i>T.M. Liggett and A. Vandenberg-Rodes</i>	
Stability on $\{0, 1, 2, \dots\}^S$: Birth-Death Chains and Particle Systems	311
<i>K. Ranestad and B. Sturmfels</i>	
The Convex Hull of a Variety	331
<i>B. Reznick</i>	
Blenders	345
<i>B. Shiffman and S. Zelditch</i>	
Random Complex Fewnomials, I	375
<i>S. Tyurina and A. Varchenko</i>	
Finite-order Invariants for $(n, 2)$ -Torus Knots and the Curve $Y^2 = X^3 + X^2$	401

Notions of Positivity and the Geometry of Polynomials

Brändén, P.; Passare, M.; Putinar, M. (Eds.)

2011, XX, 404 p., Hardcover

ISBN: 978-3-0348-0141-6

A product of Birkhäuser Basel