

Contents

Part V Measure Theory

Absolute Continuity and Singularity of Measures Without Measure Theory	5
R.B. Burckel	
Visible and Invisible Cantor Sets	11
Carlos Cabrelli, Udayan B. Darji, and Ursula Molter	
Convolution Inequalities for Positive Borel Measures on \mathbb{R}^d and Beurling Density	23
Jean-Pierre Gabardo	
Positive-Operator-Valued Measures: A General Setting for Frames	49
Bill Moran, Stephen Howard, and Doug Cochran	

Part VI Filtering

Extending Wavelet Filters: Infinite Dimensions, the Nonrational Case, and Indefinite Inner Product Spaces	69
Daniel Alpay, Palle Jorgensen, and Izchak Lewkowicz	
On the Group-Theoretic Structure of Lifted Filter Banks	113
Christopher M. Brislawn	
Parametric Optimization of Biorthogonal Wavelets and Filterbanks via Pseudoframes for Subspaces	137
Shidong Li and Michael Hoffman	
On the Convergence of Iterative Filtering Empirical Mode Decomposition	157
Yang Wang and Zhengfang Zhou	

Wavelet Transforms by Nearest Neighbor Lifting	173
Wei Zhu and M. Victor Wickerhauser	

Part VII Operator Theory

On the Heat Kernel of a Left Invariant Elliptic Operator	197
Ovidiu Calin, Der-Chen Chang, and Yutian Li	
Mixed-Norm Estimates for the k-Plane Transform	211
Javier Duoandikoetxea and Virginia Naibo	
Representation of Linear Operators by Gabor Multipliers	229
Peter C. Gibson, Michael P. Lamoureux, and Gary F. Margrave	
Extension of Berezin–Lieb Inequalities	251
John R. Klauder and Bo-Sture K. Skagerstam	
Bilinear Calderón–Zygmund Operators	267
Diego Maldonado	
Weighted Inequalities and Dyadic Harmonic Analysis	281
María Cristina Pereyra	

Part VIII Biomathematics

Enhancement and Recovery in Atomic Force Microscopy Images	311
Alex Chen, Andrea L. Bertozzi, Paul D. Ashby, Pascal Getreuer, and Yifei Lou	
Numerical Harmonic Analysis and Diffusions on the 3D-Motion Group	333
Gregory S. Chirikjian	
Quantification of Retinal Chromophores Through Autofluorescence Imaging to Identify Precursors of Age-Related Macular Degeneration.....	355
M. Ehler, J. Dobrosotskaya, E.J. King, and R.F. Bonner	
Simple Harmonic Oscillator Based Reconstruction and Estimation for One-Dimensional q-Space Magnetic Resonance (1D-SHORE).....	373
Evren Özarslan, Cheng Guan Koay, and Peter J. Basser	
Fourier Blues: Structural Coloration of Biological Tissues	401
Richard O. Prum and Rodolfo H. Torres	

A Harmonic Analysis View on Neuroscience Imaging 423
Paul Hernandez–Herrera, David Jiménez, Ioannis A. Kakadiaris,
Andreas Koutsogiannis, Demetrio Labate, Fernanda Laezza,
and Manos Papadakis

Index 451

Excursions in Harmonic Analysis, Volume 2

The February Fourier Talks at the Norbert Wiener
Center

Andrews, T.D.; Balan, R.; Benedetto, J.J.; Czaja, W.;
Okoudjou, K. (Eds.)

2013, XIX, 456 p. 56 illus., 21 illus. in color., Hardcover

ISBN: 978-0-8176-8378-8

A product of Birkhäuser Basel