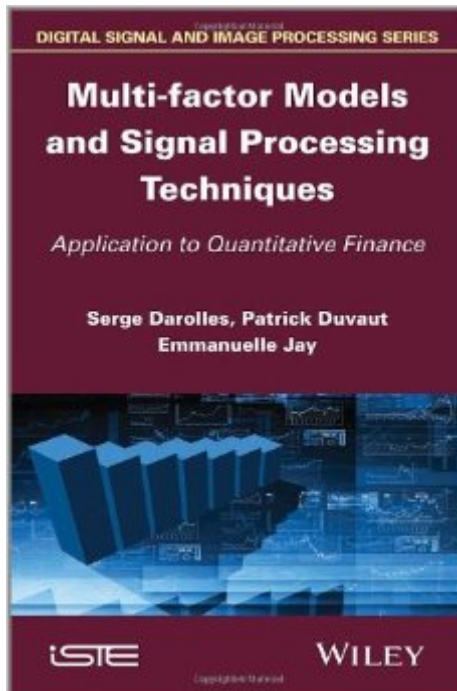


The book was found

# Multi-factor Models And Signal Processing Techniques: Application To Quantitative Finance



## Synopsis

With recent outbreaks of multiple large-scale financial crises, amplified by interconnected risk sources, a new paradigm of fund management has emerged. This new paradigm leverages embedded quantitative processes and methods to provide more transparent, adaptive, reliable and easily implemented risk assessment-based practices. This book surveys the most widely used factor models employed within the field of financial asset pricing. Through the concrete application of evaluating risks in the hedge fund industry, the authors demonstrate that signal processing techniques are an interesting alternative to the selection of factors (both fundamentals and statistical factors) and can provide more efficient estimation procedures, based on regularized Kalman filtering for instance. With numerous illustrative examples from stock markets, this book meets the needs of both finance practitioners and graduate students in science, econometrics and finance.

Contents Foreword, Rama Cont. 1. Factor Models and General Definition. 2. Factor Selection. 3. Least Squares Estimation (LSE) and Kalman Filtering (KF) for Factor Modeling: A Geometrical Perspective. 4. A Regularized Kalman Filter (rgKF) for Spiky Data. Appendix: Some Probability Densities.

About the Authors Serge Darolles is Professor of Finance at Paris-Dauphine University, Vice-President of QuantValley, co-founder of QAMLab SAS, and member of the Quantitative Management Initiative (QMI) scientific committee. His research interests include financial econometrics, liquidity and hedge fund analysis. He has written numerous articles, which have been published in academic journals. Patrick Duvaut is currently the Research Director of Telecom ParisTech, France. He is co-founder of QAMLab SAS, and member of the Quantitative Management Initiative (QMI) scientific committee. His fields of expertise encompass statistical signal processing, digital communications, embedded systems and QUANT finance. Emmanuelle Jay is co-founder and President of QAMLab SAS. She has worked at Aequam Capital as co-head of R&D since April 2011 and is member of the Quantitative Management Initiative (QMI) scientific committee. Her research interests include SP for finance, quantitative and statistical finance, and hedge fund analysis.

## Book Information

Hardcover: 320 pages

Publisher: Wiley-ISTE; 1 edition (July 22, 2013)

Language: English

ISBN-10: 1848214197

ISBN-13: 978-1848214194

Product Dimensions: 6.4 x 0.8 x 9.5 inches

Shipping Weight: 1.1 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #1,959,484 in Books (See Top 100 in Books) #289 in Books > Engineering & Transportation > Engineering > Telecommunications & Sensors > Signal Processing #394 in Books > Science & Math > Physics > Waves & Wave Mechanics #4139 in Books > Engineering & Transportation > Engineering > Electrical & Electronics > Electronics

[Download to continue reading...](#)

Multi-factor Models and Signal Processing Techniques: Application to Quantitative Finance  
Bayesian Signal Processing: Classical, Modern and Particle Filtering Methods (Adaptive and Cognitive Dynamic Systems: Signal Processing, Learning, Communications and Control) Signal Processing Algorithms in Fortran and C (Prentice-Hall Signal Processing Series) Multidimensional Digital Signal Processing (Prentice-Hall Signal Processing Series) Digital Signal Processing with Examples in MATLAB®, Second Edition (Electrical Engineering & Applied Signal Processing Series) Discrete-Time Signal Processing (3rd Edition) (Prentice-Hall Signal Processing Series) Digital Signal Processing: with Selected Topics: Adaptive Systems, Time-Frequency Analysis, Sparse Signal Processing Red Smoothies: 2 Manuscripts - Red Smoothie Detox Factor (Vol.1) + Red Smoothie Detox Factor (Vol. 2 - Superfoods Red Smoothies) Hierarchical Linear Models: Applications and Data Analysis Methods (Advanced Quantitative Techniques in the Social Sciences) Introduction to R for Quantitative Finance Mastering R for Quantitative Finance Modeling Structured Finance Cash Flows with Microsoft® Excel: A Step-by-Step Guide (Wiley Finance) Speech and Audio Signal Processing: Processing and Perception of Speech and Music Biosignal and Medical Image Processing (Signal Processing and Communications) Handbook of Neural Networks for Speech Processing (Artech House Signal Processing Library) Multiple Time Series Models (Quantitative Applications in the Social Sciences) Satellite and Terrestrial Radio Positioning Techniques: A Signal Processing Perspective Quantitative Electroencephalographic Analysis (QEEG) Databases for Neurotherapy: Description, Validation, and Application Application Of Quantitative Methods In Veterinary Epidemiology Indian Reprint Microsoft Excel 2013 Building Data Models with PowerPivot: Building Data Models with PowerPivot (Business Skills)

[Dmca](#)