

Contents

Mathematical Models of Price Impact and Optimal Portfolio Management in Illiquid Markets	1
Nikolay Andreev	
Evidence of Microstructure Variables' Nonlinear Dynamics from Noised High-Frequency Data	13
Nikolay Andreev and Victor Lapshin	
Revisiting of Empirical Zero Intelligence Models	25
Vyacheslav Arbuzov	
Construction and Backtesting of a Multi-Factor Stress-Scenario for the Stock Market	37
Kirill Boldyrev, Dmitry Andrianov, and Sergey Ivliev	
Modeling Financial Market Using Percolation Theory	47
Anastasiya Byachkova and Artem Simonov	
How Tick Size Affects the High Frequency Scaling of Stock Return Distributions	55
Gianbiagio Curato and Fabrizio Lillo	
Market Shocks: Review of Studies	77
Mariya Frolova	
The Synergy of Rating Agencies' Efforts: Russian Experience	93
Alexander Karminsky	
Spread Modelling Under Asymmetric Information	111
Sergey Kazachenko	
On the Modeling of Financial Time Series	131
Aleksey Kutergin and Vladimir Filimonov	

Adaptive Stress Testing: Amplifying Network Intelligence by Integrating Outlier Information (Draft 16)	153
Alan Laubsch	
On Some Approaches to Managing Market Risk Using VaR Limits: A Note	195
Alexey Lobanov	
Simulating the Synchronizing Behavior of High-Frequency Trading in Multiple Markets	207
Benjamin Myers and Austin Gerig	
Raising Issues About Impact of High Frequency Trading on Market Liquidity	215
Vladimir Naumenko	
Application of Copula Models for Modeling One-Dimensional Time Series	225
Vadim Onishchenko and Henry Penikas	
Modeling Demand for Mortgage Loans Using Loan-Level Data	241
Evgeniy Ozhegov	
Sample Selection Bias in Mortgage Market Credit Risk Modeling	249
Agatha Lozinskaia	
Global Risk Factor Theory and Risk Scenario Generation Based on the Rogov-Causality Test of Time Series Time-Warped Longest Common Subsequence	263
Mikhail Rogov	
Stress-Testing Model for Corporate Borrower Portfolios	279
Vladimir Seleznev, Denis Surzhko, and Nikolay Khovanskiy	