

Proceedings of the 5th Symposium on Physics in Economics and Social Sciences,  
Warszawa, Poland, November 25–27, 2010

- B. Bieda, P. Chodorowski, D. Grech, *On the Zipf Strategy for Short-Term Investments in WIG20 Futures*..... B-7
- J. Chudziak, *On a Class of One-Switch Multiattribute Utility Functions*..... B-11
- K. Cichy, *Microeconomic Evolution Model with Technology Diffusion*..... B-16
- T. Ciepliński, A. Dominiczak, R. Kutner, *Short Comprehensive Report on the Non-Brownian Stochastic Dynamics at Financial and Commodity Markets*..... B-24
- A.Z. Górski, S. Drożdż, A. Mokrzycka, J. Pawlik, *Accuracy Analysis of the Box-Counting Algorithm*..... B-28
- T.M. Gradowski, M.J. Mrowinski, R.A. Kosinski, *Cooperation Model with Costly Punishment*..... B-31
- D. Grech, G. Pamuła, *Multifractal Background Noise of Monofractal Signals*..... B-34
- U. Grzybowska, M. Karwański, A. Orłowski, *Examples of Migration Matrices Models and their Performance in Credit Risk Analysis*..... B-40
- M. Jagielski, R. Kutner, M. Pęczkowski, *Preliminary comparison of households' income in Poland with European Union and United States ones by using the statistical physics methods*..... B-47
- A. Jakimowicz, *Stability of the Cournot–Nash Equilibrium in Standard Oligopoly*..... B-50
- A. Jakimowicz, J. Juzwyszyn, *Vortex Stabilization of Market Equilibrium in Theory and in Practice of Economics*..... B-54
- K. Karpio, P. Łukasiewicz, A. Orłowski, *Price–Volume Relationship in Polish Stock Market*..... B-61
- P. Kondratiuk, J.A. Holyst, *Model of Communities Isolation at Hierarchical Modular Networks*..... B-67
- A. Krawiecki, M. Kaim, *Structural Stochastic Multiresonance in Hierarchical Networks*..... B-72
- P. Gawroński, K. Kułakowski, M. Kämpf and J. W. Kantelhardt, *Evacuation in the Social Force Model is not Stationary*..... B-77
- P. Łukasiewicz, K. Karpio, A. Orłowski, *The Models of Personal Incomes in USA*..... B-82
- K. Malarz, K. Kułakowski, *Bounded confidence model: addressed information maintain diversity of opinions*..... B-86
- J. Miśkiewicz, *Analysis of Time Series Correlation. The Choice of Distance Metrics and Network Structure*..... B-89
- M.J. Mrowinski, T.M. Gradowski, R.A. Kosinski, *Models of Pedestrian Evacuation based on Cellular Automata*.. B-95
- A. Pajor, J. Osiewalski, *Bayesian Value-at-Risk and Expected Shortfall for a Large Portfolio (Multi- and Univariate Approaches)*..... B-101
- M. Snarska, *A Random Matrix Approach to Dynamic Factors in Macroeconomic Data*..... B-110
- E.M. Syczewska, *Behavior of Exchange Rates and Returns: Long Memory and Cointegration*..... B-121
- P. Weroński, J. Sienkiewicz, G. Paltoglou, K. Buckley, M. Thelwall, J.A. Holyst, *Emotional Analysis of Blogs and Forums Data*..... B-128
- R. Wojnar, *Student's  $t$ -Distribution versus Zeldovich–Kompaneets Solution of Diffusion Problem*..... B-133