



## Preface



Physics, economics, finance, sociology, mathematics, engineering, and computer science are fields of science which, as a result of cross-fertilization, have created the multi-, cross-, and interdisciplinary areas of science and research such as econophysics and sociophysics, thriving in the last two and a half decades. These mixed research fields use knowledge, methodologies, methods and tools of physics for modeling, explaining and forecasting economic and social phenomena and processes. This Special Issue contains articles of prominent researchers in the field of econo- and sociophysics. It should be emphasized that they were plenary and invited speakers at the (13th) Econophysics Colloquium (EC2017) combined with (9th) Polish Symposium on Physics in Economy and Social Sciences (Polish acronym FENS2017) – the remarkable meetings on these new areas. These joint conferences (held at Faculty of Physics University of Warsaw, July 5–7th, 2017) gathered physicists, economists, market practitioners, and researchers from many other fields. This combination of both conferences is an exceptional event that raises the importance of both because they make truly international and are strongly coupled with other meetings. Both conferences were attended by some of the most influential researchers and speakers in the area of econophysics and inspiring very active practitioners. They provided an opportunity to discuss, from various points of view, the socio-economical reality. This is extremely important at the present turbulent time, when reality is characterized by unusually high volatility making a major impact on our everyday life.

The list of previous Econophysics Colloquia (EC), containing detailed informations, are located on the [Econophysics Colloquium webpage](http://econophysics-colloquium.org/): <http://econophysics-colloquium.org/>. EC started at 2005 in Canberra (Australia) and in subsequent years were held in the following locations around the world: Tokyo (Japan 2006), Ancona (Italy 2007), Kiel (Germany 2008), Erice (Italy 2009), Taipei (Taiwan 2010), Vienna (Austria 2011), Zürich (Switzerland 2012), Pohang (Korea 2013), Kobe (Japan 2014), Prague (Czechia 2015), São Paulo (Brazil 2016). Selected papers of these Econophysics Colloquia were published, e.g., in *Physica A: Statistical Mechanics and its Applications* Vol. 370, Issue 1, Pages 1–162 (1 October 2006). The nearest EC will be held this year at Palermo University (September 12–14, 2018).

The FENS Symposia, partially inspired by Econophysics Colloquium, significantly contributed to build the Polish econo- and sociophysics society. The Symposium FENS 2017 (webpage: <http://www.ec2017.org/>) was a continuation of the eight editions of previous symposia that were held in Warsaw (2004), Kraków (2006), Wrocław (2007), Rzeszów (2009), Warsaw (2010), Gdańsk (2012), Lublin (2014), and Rzeszów (2015). The selected papers from these meetings were already published in *Acta Physica Polonica B* and *Acta Physica Polonica A*. The FENS webpage is: <http://science24.com/event/ec2017/>.

We hope that this Special Issue will be an inspiration in these fascinating areas of broadly-understood modern and challenging applications of physics ideas and concepts. The collective effort of many communities is likely to be more effective thanks to the Econophysics Network (<https://econophysicsnetwork.kcl.ac.uk/>) founded by Christophe Schinckus, Tiziana Di Matteo and Franck Javonovic.

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