



University  
of Warsaw

**Call for papers:**

**2<sup>nd</sup> Workshop of the Econophysics Network (7<sup>th</sup> of March 2017)  
School of Business, University of Leicester**

**Econophysics Colloquium (5<sup>th</sup>-7<sup>th</sup> of July 2017)  
Warsaw, University of Warsaw**

The era of complexity in economics combined with the last financial\economic crisis generated a lot of debates about the relevance of economic theory. This challenging context favoured the emergence of a variety of new approaches dealing with this increasingly complexity in finance and economics. Econophysics is good a illustration of this diversification of knowledge. Nowadays, authors coming from different sub-fields (geo-physics, quantum mechanics, etc.) try to characterize the interactions of economic agents. Mathematicians or computer scientists also showed that their area of knowledge can also contribute to a better understanding of financial\economic world. For instance, agent-based modelling can be used to describe the creation of industrial networks while income tax evasion can be presented as a physico-chemical phenomenon.

This special issue aims at contributing to the dialogue between economics\finance\business and physics. In this perspective, the term “econophysics” is defined in a broad sense since it refers to all physical tools mainly applied to finance\economics and business. The objective of this call is explicitly to deal with the variety of perspectives implemented by econophysicists. This special issue is to explore the different approaches of econophysics by creating an opportunity for the dissemination of knowledge between econophysicists and economists. We welcome high quality submissions on how the richness of econophysics can contribute to economics and finance. Indicative topics of interest include, but are not limited to:

- Agent-based modelling and econophysics
- Unusual quantitative methods in economy (strategy, risk, planning, innovation, investment)
- Financial\economic\business activity as a complex system
- Statistical and probabilistic approach of econophysics
- Simulations of dynamics of financial\economic\business systems

- Computational models of stylized facts
- Alternative perspective in econophysics (econophysical models inspired from geophysics, biophysics etc.)
- Experimental physics applied to economics\finance\business
- Creation of tools for economic\financial\business systems monitoring, coordination failures or control of systemic instabilities.
- Discussion about the policy implications of econophysicists' contributions
- Development of a theoretical\methodological bridge between econophysics and economics\finance\ business fields.

### **Important dates:**

This call for paper will be divided into two phases. A first round of discussions through the organization of a workshop at the next Econophysics Network (March 2017) where authors can send a proposal and come to present. Abstract must be sent to [cs354@le.ac.uk](mailto:cs354@le.ac.uk)

Deadline for the submission of the abstract (300 words) for the Econophysics Workshop: **10<sup>th</sup> of February 2017.**

Abstract submitted at the Econophysics Network Workshop will also be considered for a presentation at the next Econophysics Colloquium (<http://science24.com/event/ec2017/>).

**Please indicate which event above you plan to attend. Authors whose abstract will be accepted for the event in Leicester in March 2017 will be invited to present their work at the second workshop of the Econophysics Network and will have their hotel costs covered.**

These two events are supported by *Physica A*. After review of the abstract, the submission may be accepted for publication, or rejected, or returned for revision. The standard for acceptance is the same as regular submissions to the journal. Deadline for the submission of the paper: **31<sup>st</sup> May 2017.**

### **About the Econophysics Network**

The Econophysics Network (EN) has been established in 2016 at the School of Business of the University of Leicester. Since the two last decades, the expansion of finance has increased more and more interest from scientific disciplines for market

behaviours (economics, physics, mathematics, statistics, sociology, history etc.). However, except for some rare works, these investigations stay in their own disciplinary boundaries. A lot of questions concerning cross-disciplinary fertilization still need investigating. In this context, the EN invites its members to go beyond the scope of usual disciplines by promoting an interdisciplinary research whose objective is to surpass the usual identities defence embedded in disciplinary constraints.

More information on:

<http://www2.le.ac.uk/departments/management/research/units/econophysics/>