



The Abdus Salam
International Centre for Theoretical Physics



Workshop on Statistical Physics and Financial Markets

20 - 21 April 2007

Miramare-Trieste, Italy

Financial markets can be seen as very large complex systems of many interacting agents. This allows one to borrow substantial intellectual insight from systems of interacting particles in physical sciences. In this view, complexity arises as a property of economic organisation not of individuals, as in the representative agent approach. This analogy also allows one to draw from the variety of mathematical methods in statistical physics, which have been developed to characterize the macroscopic behavior of physical systems. This has proven to be useful for the characterization of anomalous fluctuations in financial markets and for understanding the typical properties of systems of heterogeneous agents.

The workshop will focus on models of financial markets and systems of interacting agents in general, with an emphasis on application of concepts and tools of statistical mechanics (e.g. phase transitions, critical phenomena, scaling theory, turbulence, statistical mechanics of disordered systems, theory of complex networks, etc). It is a meeting of the teams of the COMPLEXMARKETS EU-NEST project, but participation is also open to other scientists who will be selected by the organizers, within the limits of logistic constraints.

PARTICIPATION

Scientists from all countries, which are members of the UN, UNESCO or IAEA, may attend the Course. The main purpose of the Centre is to help researchers from developing countries, within a framework of international cooperation; however, scientists from developed countries are also welcome to attend. Since ICTP activities are conducted in English, participants should have an adequate working knowledge of this language.

As a rule, travel and subsistence expenses of participants should be borne by their home institution. However, limited funds are available for some participants who are nationals of, and working in, a developing country. **There is no registration fee.**

Interested participants should fill in and submit the **Online Application Form** that can be found at: <http://agenda.ictp.it/smr.php?1835> and attach a c.v. (for students a recommendation letter from their tutor is also requested). Kindly send all file attachments in Word or Acrobat format.

**Workshop on
Statistical Physics and Financial Markets**
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Co-sponsored by:
EU-NEST project
COMPLEXMARKETS

ORGANIZING COMMITTEE

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M. MARSILI (ICTP, Trieste)
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INVITED SPEAKERS INCLUDE

C. Chiarella* (Univ. of
Technology, Sydney)
D. Farmer* (Santa Fe Institute)
I. Kondor (Eotvos Lorand Univ.,
Budapest)
D. Sornette (ETHZ, Zurich)

*t.b.c.

DEADLINE

for requesting participation

15 December 2006