



SCHOOL and WORKSHOP on STRUCTURE and FUNCTION of COMPLEX NETWORKS

(16 - 28 May 2005)
(Miramare, Trieste, Italy)

The Abdus Salam International Centre for Theoretical Physics (ICTP) is organizing a School and Workshop on Structure and Function of Complex Networks, to be held from 16 - 28 May 2005 in Trieste, Italy. The Organizing Committee will be: **A.-L. BARABASI** (Notre Dame, U.S.A.), **M. MARSILI** (ICTP, Trieste, Italy), **F. VEGA-REDONDO** (Alicante, Spain), **A. VESPIGNANI** (Indiana University, U.S.A.) and **R. ZECCHINA** (ICTP, Trieste, Italy). The Local Organizer will be **G. BIANCONI** (ICTP, Trieste, Italy).

The finding that many complex systems, from the man-made Internet to the evolution-shaped cell and to the network of social and economical interactions, can be studied and compared on the common ground of network theory, has propelled the field into the attention of the larger scientific community and turned network research into a truly interdisciplinary enterprise.

Measurements performed on a vast number of complex systems have indicated that the networks that underlie them are not random, but have common or specific features that make them suitable for their function. The rapid growth in interest in networks has created the need both for authoritative and pedagogical introductions, lowering the barriers for newcomers and for an exchange of new results and ideas.

Main Topics:

Characterization and modeling of complex networks;
Socio-economic networks;
Technological and communication networks;
Biological and ecological networks.

This activity is divided into two parts, the first week being a School in which established results in networks will be presented by the Lecturers and the second week, a Workshop to discuss present problems in economical, biological and technological networks. The Organizing Committee promote a call for contributed talks: please send applications, with title and abstract of the proposed talk, only by email to G. Bianconi: gbiancon@ictp.trieste.it no later than **28 February 2005**.

PARTICIPATION

Scientists and students from all countries which are members of the United Nations, UNESCO or IAEA may attend the activity. As it will be conducted in English, participants should have an adequate working knowledge of this language. Although the main purpose of the Centre is to help research workers from developing countries, through a programme of training activities within a framework of international cooperation, a limited number of students and post-doctoral scientists from developed countries are also welcome to attend.

As a rule, travel and subsistence expenses of the participants should be borne by the home institution. Every effort should be made by candidates to secure support for their fare (or at least half-fare). However, limited funds are available for some participants who are nationals of, and working in, a developing country, and who are not more than 45 years old. Such support is available only for those who attend the entire activity. There is no registration fee.

The **Application Form** is obtainable from the ICTP WWW server:

<http://agenda.ictp.trieste.it/smr.php?1656>

(which will be constantly up-dated) or from the activity Secretariat

It should be completed and returned before **15 JANUARY 2005** to:

the Abdus Salam ICTP
SMR.1656
(c/o Ms. Doreen Sauleek)
Strada Costiera 11, 34014 Trieste, Italy

or via email: smr1656@ictp.trieste.it

(please save and send file attachments in RTF format)

Lecturers and Keynote Speakers: (updated as of May 2005)

L. Adamic (HP Labs., U.S.A.)
R. Albert (Penn. State Univ., U.S.A.)
A.-L. Barabasi (Notre Dame, U.S.A.)
K. Borner (Indiana Univ., U.S.A.)
G. Caldarelli (La Sapienza, Italy)
S. Goyal (Essex, U.K.)
S. Havlin (Bar-Ilan Univ., Israel)
M. O. Jackson (Caltech, U.S.A.)
M. Marsili (ICTP, Italy)
S. Maslov (BNL, U.S.A.)
J.F.F. Mendes (Aveiro, Portugal)
R. Pastor-Satorras (UPC, Spain)
F. Vega-Redondo (Alicante, Spain)
A. Vespignani (Indiana Univ., U.S.A.)
S. Wasserman (Harvard, U.S.A.)
R. Zecchina (ICTP, Italy)

List of Invited Speakers: (updated as of May 2005)

A. Barrat (Paris-Sud, France)
B. Bollobas (Memphis Univ., U.S.A.)
S. Bornholdt (Bremen, Germany)
R. Burioni (Parma, Italy)
A. Calvo-Armenegol (Barcelona, Spain)
R. Cowan (MERIT, Maastricht)
P. De Los Rios (EPFL, Switzerland)
A. Diaz-Guilera (Barcelona, Spain)
S. Dorogovtsev (Aveiro, Portugal)
M. Greiner (Siemens, Germany)
S. Jain (University of Delhi, Delhi)
J. Kertesz (Budapest, Hungary)
B.N. Kahng (Seoul, Korea)
S. Kirkpatrick (Jerusalem, Israel)
A. Kirman (CNRS, France)
P. Krapivsky (Boston, U.S.A.)
M. Laessig (Cologne, Germany)
S.S. Manna (Kolkata, India)
N. Martinez (Berkeley, U.S.A.)
F. Menczer (Indiana Univ., U.S.A.)
R. Monasson (CNRS, France)
D. Segre' (Boston, U.S.A.)
T. Snijders (Groningen, The Netherlands)
B. Tadic (Ljubljana, Slovenia)
A. Vazquez (Notre Dame, U.S.A.)
T. Vicsek (ELTE, Hungary)
M. Weigt (Göttingen, Germany)

DEADLINE **15 JANUARY 2005**