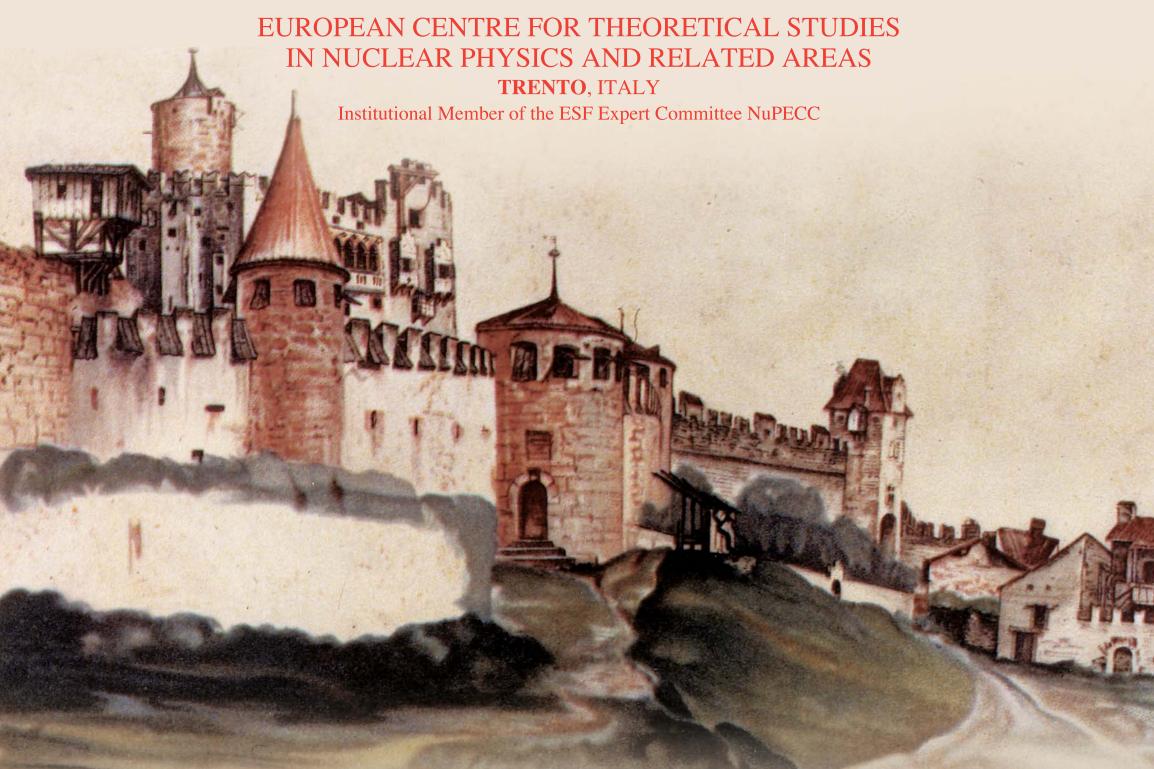Castello di Trento ("Trint"). watercolour, 19.8 x 27.7, painted by A. Dürer on his way back from Venice (1495)

British Museum, London.

Spectral Properties of Complex Networks

Trento, July 23-27, 2012

Main Topics

Modern societies have developed enormous communication and social networks and their classification and information retrieval become a formidable task. Various search engines have been developed by private companies which are actively used by Internet users. Due to the recent enormous development of World Wide Web, social and communication networks, new methods have been invented to characterize the properties of these networks on a more detailed and precise level. New characterization of complex networks will allow to manage in an efficient and rapid way information extraction for social networks, communication, bio-cell and other networks. Such type of problems of complex networks and Markov chains appear in various fields of science. The development of interdisciplinary approach to complex networks, which combines expertise from computer science, theoretical physics, mathematics, economy and biology, is the aim of this workshop.

Invited speakers include

M. Abel (*Henri Poincare U*), A. Benczur (*MTA SZTAKI Budapest*), G. Bianconi (*Northeastern U*), P. Blanchard (*ZiF Bielefeld*), A. Bonato (*Ryerson U*),
A. Chepelianskii (*Cambridge U*), S. Dorogovtsev (*U de Aveiro*), L. Ermann (*CNEA Buenos Aires*), S. Fortunato (*Aalto U*), K. Frahm (*Toulouse III U*), A. Gabrielli (*U Roma*),
J. Galtier (*Orange Labs Nice*), B. Georgeot (*CNRS Toulouse*), C. Giardina (*U Modena*), E. Izhikevich (*Brain Corporation CA*), S. Jalan (*IIT Indore*), H. Jeong (*KAIST*),
A. Kaltenbrunner (*Barcelona Media*), R. Kumar (*Yahoo! CA*), B. Li (*NU Singapore*), P. Van Mieghem (*Delft UT*), M. Olvera-Cravioto (*Columbia U*), A. Panconesi (*Sapienza U*),
F. Radicchi (*Northwestern U*), A. Scala (*U Roma*), F. Silvestri (*ISTI CNR*), L. Sirko (*IPFAN Warsaw*), S. Thurner (*Med U Wien*), A. Vespignani (*Indiana U*), S. Vigna (*U Milano*),
Y. Volkovich (*Barcelona Media*), H.J. Wang (*Delft UT*), V. Zlatic (*U Zagreb*)

Organizers

Guido Caldarelli (*CNR Roma*); Thomas Guhr (*U Duisburg-Essen*); Nelly Litvak (*U Twente*); Dima Shepelyansky (*CNRS Toulouse*)
Workshop local website: www.quantware.ups-tlse.fr/complexnetworks2012/

Director of the ECT*: Professor Achim Richter (*ECT**)