Thematic Session

Session title: Probabilistic models of large real networks

Organizers:

Andreas Geyer-Schulz, Karlsruher Institut für Technologie, Andreas.Geyer-Schulz@kit.edu

Erhard Godehardt, Clinic of Cardiovascular Surgery, Heinrich Heine University, godehard@uni-duesseldorf.de

Katarzyna Rybarczyk, Adam Mickiewicz University in Poznaniu, kryba@amu.edu.pl Jerzy Jaworski, Adam Mickiewicz University in Poznaniu, jaworski@amu.edu.pl

Description of the topic:

One of the main issues to be addressed in this session is current research on theoretical mathematical models of real networks such as communication networks or complex networks. In particular, one of the objectives is the analysis of structural similarities and differences of the random graph models of networks. Another aim of our session is the study of the algorithmic aspects associated with the discussed problem. We mean here for example sampling in large networks or finding tractable algorithmic procedures that allow to make a statistically significant inference of large network data.

2011 Mathematic Subject Classification:

05C80, 05C82, 90B15, 91D30, 90C35