Mathematics Calendar

The most comprehensive and up-to-date Mathematics Calendar information is available on e-MATH at [http://www.ams.org/mathcal/]

November 2006

* 13–14 The Ninth DIMACS Implementation Challenge: The Shortest Path Problem, DIMACS Center, CoRE Bldg, Rutgers University, Piscataway, New Jersey.

Goals: Shortest path problems are ones of the most fundamental combinatorial optimization problems with many applications, both direct and as subroutines in other combinatorial optimization algorithms. Algorithms for these problems have been studied since 1950’s and still remain an active area of research. One goal of this challenge is to create a reproducible picture of the state of the art in the area of shortest path algorithms. To this end we are identifying a standard set of benchmark instances and generators, as well as benchmark implementations of well-known shortest path algorithms. Another goal is to enable current researchers to compare their codes with each other, in hopes of identifying the more effective of the recent algorithmic innovations that have been proposed.

Organizers: Camil Demetrescu, University of Rome “La Sapienza”; Andrew Goldberg, Microsoft Research; David Johnson, AT&T Labs-Research, dag@research.att.com.

Local Arrangements: Workshop Coordinator, DIMACS Center, workshopdimacs.rutgers.edu, 732-445-5928.

Information: [http://dimacs.rutgers.edu/Workshops/Challenge9/].

December 2006

* 11–13 DIMACS Workshop on Immuno-epidemiology, DIMACS Center, CoRE Bldg, Rutgers University, Piscataway, New Jersey.

Description: Individual hosts differ considerably in the way in which they respond to the same pathogen. This is not only caused by genetic polymorphism determining immune reaction (e.g. MHC), but also by the infection history of the individual (e.g. influenza, parasites with acquired immunity, dengue). An individual's history is a result of the past pattern of transmission in the population. Population transmission (infection pressure) by itself is the collective output of infectious material by the individuals that constitute the population, which in turn is decided by each individual's reaction to the pathogen. This closes a circle of mutual interaction and influence. This cycle influences the population effects of control measures aimed at individuals, and the evolution of resistance and virulence. In order to understand these processes we need a fuller understanding of the immunity-transmission cycle.

Organizers: Hans Heesterbeek, Universiteit Utrecht, The Netherlands, j.a.p.heesterbeek@vet.uu.nl; Rob de Boer, Universiteit Utrecht, The Netherlands, r.j.deboer@bio.uu.nl.

Local Arrangements: Workshop Coordinator, DIMACS Center, workshopdimacs.rutgers.edu, 732-445-5928.

Information: [http://dimacs.rutgers.edu/Workshops/Immuno/].

* 15–17 2nd International Workshop on Matrix Analysis and Applications, Nova Southeastern University, Fort Lauderdale, Florida.

Aim: The aim of this mathematical meeting is to stimulate research and interaction of researchers interested in all aspects of linear and multilinear algebra, matrix analysis and its applications. The conference is sponsored by the International Linear Algebra Society (ILAS) and Nova Southeastern University.

Keynote speaker: Richard Brualdi (University of Wisconsin-Madison).

Organizing Committee: Zhong-Zhi Bai (Chinese Academy of Sciences), Chi-Kwong Li (College of William and Mary), Bryan Shader (University of Wyoming), Hugo Woerdeman (Drexel University),
Fuzhen Zhang (Nova Southeastern University) and Qingling Zhang (China Northeastern University).

**Topic:** A special issue, Matrix Analysis and Applications, of the *International J. of Information & Systems Sciences* will be devoted to the meeting. Paper submissions to the special issue are solicited.

**Deadline:** Registration deadline: November 1, 2006.

**Information:** Contact: zhang@nova.edu; http://undergrad.nova.edu/mst/matrix/.

**April 2007**

*20–22 Riviere-Fabes Symposium on Analysis and PDE, University of Minnesota, Minneapolis, Minnesota.*

**Information:** Program details and more information can be found at the meeting’s website: http://www.math.umn.edu/conferences/riv_fabes/.

*25-28 Conference on Ordered Rings, Baton Rouge 2007 ("Ord007"), Louisiana State University, Baton Rouge, Louisiana.*

**Topics:** Partially and totally ordered rings and fields, f-rings, rings of continuous real-valued functions, spectra and representations, valuations, sums of squares, connections with logic and universal algebra, and applications to topology, real algebraic geometry (e.g., the Pierce-Birkhoff conjecture), etc.

**Organizers:** Charles N. Delzell, Louisiana State University; James J. Madden, Louisiana State University.

**Information:** http://www.math.lsu.edu/~maddin/Ord007.

**May 2007**

*15–20 The 27th Annual Great Plains Operator Theory Symposium (GPOTS-2007), University of Nebraska, Lincoln, Nebraska.*

**Program:** Invited plenary lectures and 20 minute contributed talks on Operator Algebras and Operator Theory. Conference starts with an evening reception on Tuesday, May 15, 2007, and ends around noon on Sunday, May 20, 2007.

**Scientific Committee and Local Organizers:** R. Curto (Iowa), M. Dadarlat (Purdue), K. Davidson (Waterloo), A. Donsig (Nebraska), R. Douglas (Texas A&M), C. Farthing (Nebraska), D. Larson (Texas A&M), J. Orr (Nebraska), D. Pitts (Nebraska).

**Information:** http://www.math.unl.edu/pi/events/gpots07/.

**June 2007**

*14–16 The XVth International Colloquium on Integrable Systems and Quantum symmetries, Czech Technical University, Prague, Czech Republic.*

**Workshop topics:** Quantum and classical integrable systems, Quantum groups, Yangians and their representations, Noncommutative geometry

**Program:** Ten (40 minute) talks scheduled for three morning sessions, further contributions (20 minute talks) presented during the afternoon sessions.

**Deadline:** Registration: March 31st, 2007.

**Information:** http://kmlinux.fjfi.cvut.cz/intsystems/.

**July 2007**

*2-4 The 2007 International Conference of Applied and Engineering Mathematics, Imperial College London, London, U.K.*


*22–27 CIM/UC Summer School: Topics in Nonlinear PDEs, Centro Internacional de Matemática (CIM), Coimbra, Portugal.*

**Program:** The School will consist of four short courses of six hours each, and of short communications.

**Speakers:** Luis Caffarelli (University of Texas at Austin, USA), Charlie Elliott (University of Sussex, UK), Felix Otto (University of Bonn, Germany) and Benoit Perthame (Ecole Normale Superieure, France).

**Topics:** Problems and methods involving free boundaries (L. Caffarelli); Critical state models in superconductivity (C. Elliott); Analysis of pattern formation in physical models (F. Otto); Nonlinear PDEs in Biology (B. Perthame).

**Organizers:** José Francisco Rodrigues (CMUC and University of Lisbon, Portugal) and José Miguel Urbano (CMUC and University of Coimbra, Portugal).

**Deadlines:** Applications for financial support are due on April 15, 2007.

**Information:** http://www.cim.pt/pdes07.