

First Announcement and Call for Papers
SNC 2014: International Conference on Symbolic Numeric Computation
July 28-31, 2014, Shanghai, China
<http://symbolic-numeric-computation.org/snc-2014>

Overview

Algorithms that combine techniques from symbolic and numeric computation have been of increasing importance and interest over the past decade. The necessity for a mathematically sound framework for algebraic problems in an approximate setting, to work reliably with imprecise or noisy data, and for speed and accuracy in hybrid symbolic-numeric problems have fuelled a new synergy between the numeric and symbolic computing fields. The SNC meetings explore new algorithms in which symbolic and numeric methods are combined to do more than can be done with either alone.

The goal of the present conference is to support the interaction and integration of symbolic and numeric computing. Earlier meetings in this series include the SNAP 96 Workshop, held in Sophia Antipolis, France, the SNC 2005 meeting, held in Xi'an, China, SNC 2007 which was held in London, Canada, SNC 2009, held in Kyoto, Japan and SNC 2011, held in San Jose, USA.

This 5th international conference on Symbolic-Numeric Computation will be held on July 28-31 at East China Normal University in Shanghai, China. This conveniently follows the nearby International Symposium on Symbolic and Algebraic Computation (ISSAC 2014), held in Kobe, Japan.

Conference Topics

Specific topics of SNC 2014 include, but are not limited to: Symbolic-numeric algorithms in polynomial, linear and differential algebra, Approximate polynomial GCD and factorization, Symbolic-numeric methods for solving polynomial systems, Resultants and structured matrices for symbolic-numeric computation, Differential equations for symbolic-numeric computation, Symbolic-numeric methods for geometric computation, Symbolic-numeric algorithms in algebraic geometry, Symbolic-numeric algorithms for nonlinear optimization, Implementation of symbolic-numeric algorithms, Model construction by approximate algebraic algorithms, Applications of symbolic-numeric computation: global optimization, verification, signal processing, etc.

Invited Speakers and preliminary talk titles

Erich L. Kaltofen, North Carolina State University (USA) *Cleaning-Up Data for Sparse Model Synthesis: When Symbolic-Numeric Computation Meets Error-Correcting Codes*

Lawrence Paulson, University of Cambridge (UK) *Automated Theorem Proving For Special Functions: The Next Phase*

Bernd Sturmfels, UC Berkeley (USA) *Maximum Likelihood for Matrices with Rank Constraints*

Submission Instructions

SNC 2014 invites submission of original research contributions to be considered for publication and presentation at the conference. Papers must be in English and shall be reviewed by the Program Committee and external referees. Submissions should be in the form of abstracts (2 pages) or full papers (up to 10 pages) in the ACM sig-alternate.cls style (see <http://www.acm.org/sigs/publications/proceedings-templates>). Submission is via EasyChair at the site <http://www.easychair.org/conferences/?conf=snc2014>

Papers must not duplicate work published or submitted for consideration elsewhere prior or in parallel to the SNC submission. At least one author of each accepted paper must register for the conference and present the paper.

Conference proceedings will be published by ACM in the ACM Digital Library. In keeping with tradition of previous SNC conferences, a special issue of the journal Theoretical Computer Science (TCS) is planned to follow the conference. SNC 2014 authors will be able to submit full papers to the special issue. Submission details for the special issue will be provided at the conference.

Important Dates

Submission deadline:	24 March 2014
Notification:	28 April 2014
Camera-ready due:	19 May 2014
Workshop:	28-31 July 2014

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Thanks

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