

FIRST ANNOUNCEMENT AND CALL FOR PAPERS

International Conference on
Interval Methods and Computer Aided Proofs
in Science and Engineering

INTERVAL'96

Sep 30 - Oct 2, 1996
Würzburg, Germany

ORGANIZED BY

- Faculty of Mathematics and Computer Science, Würzburg University
- The Editorial Board of the International Journal *Reliable Computing*

The following scientists have agreed to join the
PROGRAM COMMITTEE

Chairmen:

R. B. Kearfott (USA), V. M. Nesterov (Russia),
J. Wolff von Gudenberg (Germany)

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S. Rump (Germany), S. Shary (Russia), C. Ullrich (Switzerland)

Local organizer: J. Wolff von Gudenberg

INTERVAL'XX CONFERENCES

The conferences INTERVAL'XX are significant meetings devoted to various aspects of reliable numerical computations based on the interval approach. (Sometimes the terms validated numerics, localizational computations, or enclosure methods are used). Talks are devoted to development of corresponding mathematical structures, design of computer tools, and applications in a wide range of areas.

The first conference was held in September 1992 near Moscow, with impressive success. Papers were presented by 106 participants from 17 countries throughout the world. It was decided to hold the INTERVAL'XX conferences biannually. The INTERVAL'92 conference emphasized the relation of interval computations to mathematical statistics. (The complete title of the conference was *Interval and Stochastic Methods in Science and Engineering*).

The INTERVAL'94 conference emphasized interdisciplinary research with computer algebra. (The complete title of the conference was *Interval and Computer Algebraic Methods in Science and Engineering*). It took place March 6–11, 1994 in St.Petersburg, Russia. There were more than 120 talks presented by participants from 18 countries.

INTERVAL'96 will focus on computer assisted proofs ranging from symbolic computation through rigorous error estimation, and including different paradigms such as functional and logic programming as well as solution of constraint systems. The traditional interval approach will appear as one important aspect common to most of the approaches. Although papers may be restricted to one of these topics, we especially encourage the submission of reports on combination of several approaches.

Interval constraints, e.g., provides an efficient model for computing reliable bounds for numerical constraint systems. It opens a way of application of interval arithmetic for commercial rather than scientific problems. The combination of control theory and game theory together with interval or standard numerical methods to obtain reliable inclusions may be quoted as another example of interesting applications.

Topics. The following topics will be considered: interval mathematics, hardware and software for interval and computer-algebraic methods, SC-languages, logic constraint programming, interval modelling, interval constraints, computer aided proofs in analysis, interval algorithms in control theory, organization of symbolic-numeric interfaces, programming environments for scientific computing, and applications in various fields of science and engineering as well as commercial issues.

Time and place. The Conference will be held on September 30 – October 2, 1996 in Würzburg, Germany. Würzburg is a baroque city with many restored and well-preserved buildings; the most famous of which is the former bishops residence with its beautiful staircase. Excursions to other beautiful cities such as Rothenburg may be organized.

Fees. Information on registration fee for the conference, hotel and other costs will be sent in further announcements.

Extended abstracts and papers. Two copies of an extended abstract of maximum 2 pages are requested for selection purposes. The deadline will be May 1, 1996. Electronic submission is strongly recommended. A \LaTeX format will be available via WWW (see address below). A collection of extended abstracts will be printed before the conference. Refereed proceedings including full versions of selected papers will be published after the conference.

Languages. The official language is English.

If you wish to get more detailed and current information, look at WWW:

<http://www.informatik.uni-wuerzburg.de/interval96>

or write:

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