Report on the
IMACS–GAMM International Workshop
on Validated Computation
August 30 — September 3, 1993
Universität Oldenburg, Germany
by J. Herzberger, Oldenburg

The Fachbereich Mathematik hosted the workshop with Prof. J. Herzberger as the organizer. It was attended by 29 participants from 10 countries:

J. Albrecht (Germany), G. Alefeld (Germany), L. Atanassova (Germany), H. Behnke (Germany), K. Bekyarov (Bulgaria), A. Christnach (Germany), T. Csedes (Hungary), F. Goerisch (Germany), G. Heindl (Germany), J. Herzberger (Germany), V. Hristov (Bulgaria), K.-U. Jahn (Germany), P. Janssens (Belgium), N. Kjurkchiev (Bulgaria), U. Kulish (Germany), Yongxiang Ling (China), G. Mayer (Germany), F. Mraz (Czech Republic), M. Plum (Germany), A. Rahman (Malaysia), R. Rihm (Germany), J. Rohn (Czech Republic), S. Rump (Germany), V. Rvachev (Ukraine), Yu. Stoyan (Ukraine), Ch. Ullrich (Switzerland), T. Yamamoto (Japan) and Shiming Zheng (China).

The purpose of this meeting was to give a survey of the state-of-the-art in several selected areas of the application of interval arithmetic in constructing numerical algorithms. This was done mainly by a number of survey talks in fields like eigenvalue-inclusion, nonlinear equations solving, optimization and ODE's as well as PDE's. During the last day there was an informal session with a number of short communications reporting about recent results on special problems. Approximately a dozen of the invited talks will appear in a volume in the series "Studies in Computational Mathematics" with the title "Topics in Validated Computation" (J. Herzberger, ed.) published by ELSEVIER (North Holland), Amsterdam next summer. The meeting was supported with travel grants by the Volkswagen Foundation, the Ministry of Science of the State of Lower Saxony and Universitätsgesellschaft Oldenburg.