Preface

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This is the second issue containing full, traditionally refereed papers with material presented at the Validated Computing 2002 conference, held in Toronto, May 23 to May 25, 2002. (The first issue was Volume 9, issue 2, April, 2003.) See (Kearfott and Walster, 2002) for a review of that conference and see the web page
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http://www.cs.utep.edu/interval-comp/
                interval.02/program.html
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for the conference program.

Of the six papers in this issue, L. E. K. Achenie and M. Sinha ("Interval Global Optimization in Solvent Design"), as well as P. S. V. Nataraj and J. J. Barve ("Reliable Computation of Frequency Response Plots for Nonrational Transfer Functions to Prescribed Accuracy") describe significant, successful new applications, where validation techniques are applied in new and effective ways.

M. T. Nakao, Y. Watanabe, N, Yamamoto, and N. Takaaki ("Some Computer Assisted Proofs for Solutions of Heat Convection Problems") as well as U. Schäfer ("Accelerated Enclosure Methods for Ordinary Free Boundary Problems") describe further advances in validated solutions of differential equations.

W. Krämer and J. Wolff von Gudenberg ("Extended Interval Power Function") consider practical considerations, as well as theory of extended arithmetic, in implementation of interval extensions of the real power function. Finally, V. Kreinovich, L. Longpré, and J. J. Buckley ("Are There Efficient Necessary and Sufficient Conditions for Straightforward Interval Computations to be Exact") treat theoretically the fundamental problem of estimating the overestimation in interval arithmetic.

It has been a pleasure participating in Validated Computing 2002, and I thank everyone involved.

References

Kearfott, R. B. and G. W. Walster: 2002, 'SIAM Conference on Optimization, Validated Computing 2002, and the Fields Institute Informal Working Group on Validated Optimization: A Personal View'. *Reliable Computing* **8**(5), 419–424.