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Advanced Problems in Constructive Approximation

**3rd International Dortmund Meeting on Approximation Theory
(IDoMAT) 2001**

Edited by

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Preface

The current form of modern approximation theory is shaped by many new developments which are the subject of this series of conferences. The International Meetings on Approximation Theory attempt to keep track in particular of fundamental advances in the theory of function approximation, for example by (orthogonal) polynomials, (weighted) interpolation, multivariate quasi-interpolation, splines, radial basis functions and several others. This includes both approximation order and error estimates, as well as constructions of function systems for approximation of functions on Euclidean spaces and spheres.

It is a piece of very good fortune that at all of the IDoMAT meetings, colleagues and friends from all over Europe, and indeed some countries outside Europe and as far away as China, New Zealand, South Africa and U.S.A. came and discussed mathematics at IDoMAT conference facility in Witten-Bommerholz. The conference was, as always, held in a friendly and congenial atmosphere.

After each meeting, the delegates were invited to contribute to the proceeding's volume, the previous one being published in the same Birkhäuser series as this one. The editors were pleased about the quality of the contributions which could be solicited for the book. They are refereed and we should mention our gratitude to the referees and their work.

The recent meeting in August 2001 was particular in that it was held at the time of Professor Manfred Müller's retirement. It was therefore both a celebration of approximation theory and of the many mathematical contributions Professor Müller made to approximation theory, as well as his friendship with many of the meeting's delegates, including, of course, the editors of this volume. We are grateful for the fine contributions that were delivered at the time of the conference, several of which are now included in this book. It is meant not only as a proceedings of the IDoMAT meeting, but also as a *Festschrift* in honour of Manfred Müller. This volume is therefore in its entirety dedicated to him.

At this point we also thank the Deutsche Forschungsgemeinschaft (Bonn) for providing the majority of the financial support of this conference and the publisher for accepting the proceedings into its International Series of Numerical Mathematics.

Also we would like to thank all participants for their efforts towards making this a successful meeting.

Leading experts and colleagues in approximation theory and quite a number of young researchers made the conference a stimulating event, with interesting discussions and scientific interactions to support and initiate future research. In this sense the success of the IDoMAT conferences in the years 1995, 1998 & 2001 and the positive resonance will encourage us to continue in future this series of International Meetings with new developments in approximation theory and applied mathematics in Witten-Bommerholz.

Witten-Bommerholz, August 2002

Martin D. Buhmann

Detlef H. Mache



3rd International Meeting on Approximation Theory
Witten - Haus Bommerholz (Germany)
August 20-24, 2001

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