

Contents of GMD-Study no. 110:

M.T. Arthur

A generalisation of Hall's scheme for solving the Euler equations for two-dimensional flows

K. Becker

A multigrid solver for two-dimensional transonic full potential flow calculations

R. Boyer and B. Martinet

Multigrid methods in convex optimization

U. Brockmeier, N.K. Mitra and M. Fiebig

Implementation of multigrid in SOLA algorithm

V. Couaillier

Solution of the Euler equations: Explicit schemes acceleration by a multigrid method

R. Löhner and K. Morgan

Unstructured multigrid methods

G. Lonsdale

Solution of a rotating Navier-Stokes problem by a nonlinear multigrid algorithm

A.L. Luntz and B. Epstein

A multigrid full potential transonic code for arbitrary configurations

V. Pau and E. Lewis

Application of the multigrid technique to the pressure-correction equation for the simple algorithm

R. Rabenstein

A signal processing approach to the numerical solution of parabolic differential equations

U. Råde

Discretizations for multigrid methods

B. Steffen

Incorporation of multigrid in accelerator software

C.A. Thole

Performance of a multigrid method on a parallel architecture

B. Wagner, S. Leicher and W. Schmidt

Applications of a multigrid finite volume method with Runge-Kutta time integration for solving the Euler and Navier-Stokes equations

Participants:

D. Albrecht	Technische Hochschule Darmstadt, West Germany
Ch. Arakawa	Universität Karlsruhe, West Germany
W. Arrenbrecht	Technische Hochschule Aachen, Inst. für Mechanik, West Germany
M.T. Arthur	Royal Aircraft Establishment, Farnborough Hants, UK
W. Auzinger	Technische Universität Wien, Austria
O. Axelsson	Catholic University of Nijmegen, The Netherlands
Herr Ballmann	Technische Hochschule Aachen, West Germany
V. Bake	Universität Münster, West Germany
R.E. Bank	University of California at San Diego, USA
S. de Barros	GMD-F1, St. Augustin, West Germany
Herr Bauer	Universität Stuttgart, West Germany
K. Becker	GMD-F1, St. Augustin, West Germany
P. Berger	Universität Stuttgart, West Germany
D. Bischoff	Universität Hannover, West Germany
P. Bjorstad	Det Norske Veritas, Oslo, Norway
H. Blum	Universität des Saarlandes, Saarbrücken, West Germany
H.G. Bock	Universität Bonn, West Germany
R. Böer	Kraftwerk Union AG, Erlangen, West Germany
R. Boyer	Universite de Provence, Marseille, France
B.J. Braams	Max-Planck-Institut für Plasmaphysik, Garching, West Germany
F. Brakhagen	GMD-F1, St. Augustin, West Germany
D. Braess	Ruhr-Universität Bochum, Math. Institut, West Germany
G. Brand	Universität Hannover, West Germany
K. Brand	GMD-F1, St. Augustin, West Germany
A. Brandt	Weizmann Institute of Science, Rehovot, Israel
U. Brockmeier	Ruhr-Universität Bochum, West Germany
O. McBryan	Courant Institute, New York, USA
Herr Burde	IABG, Ottobrunn, West Germany
N. Carmichael	Koninklijke/Shell, Rijswijk, The Netherlands
S. McCormick	University of Colorado at Denver, USA
V. Couaillier	ONERA, Chatillon, France
J. Curre	Universität Stuttgart, West Germany
K. Davstad	University of Stockholm, Sweden
B. Debus	GMD-F1, St. Augustin, West Germany
A. Delgado	Universität Essen, West Germany
O. Delgado	Universität Essen, West Germany
E. Dick	State University of Ghent, Belgium
B. Epstein	Israel Aircraft Industries, Lod, Israel
H. Finnemann	Kraftwerk Union AG, Erlangen, West Germany
F. Förtsch	Technische Hochschule Aachen, West Germany
Herr Fritsch	Universität Erlangen-Nürnberg, West Germany
L. Fuchs	Royal Institute of Technology, Stockholm, Sweden
U. Gärtel	Universität Köln, Math. Institut, West Germany
J. Genet	Universite de Pau, France
L. Geus	Universität Erlangen-Nürnberg, West Germany
N. Gluschitz	Pöding, West Germany

B. Görg	GMD-F2, St. Augustin, West Germany
W. Hackbusch	Universität Kiel, West Germany
H. Hahn	Technische Universität Braunschweig, West Germany
E. Halter	KfK/IDT, Karlsruhe, West Germany
D. Hänel	Technische Hochschule Aachen, West Germany
W. Heinrichs	Universität Düsseldorf, West Germany
P.W. Hemker	Stichting Mathematisch Centrum, Amsterdam, The Netherlands
G. Hofmann	Universität Kiel, West Germany
H. Holstein	University of Wales, Aberystwyth, UK
R.A. Hughes	University of Bristol, UK
R.K. Jain	GMD-F1, St. Augustin, West Germany
A. Jameson	Princeton University, USA
W. Joppich	GMD-F1, St. Augustin, West Germany
H. Kapitza	GKSS, Geesthacht, West Germany
H.B. Keller	CALTECH, Pasadena, USA
J. Kightley	Harwell, Oxford, UK
O. Kolp	GMD-F2, St. Augustin, West Germany
A. Kost	Technische Universität Berlin
H. Kriegel	Physikalisch Technische Bundesanstalt, Braunschweig, West Germany
N. Kroll	DFVLR, Braunschweig, West Germany
A. Kumar	DFVLR, Braunschweig, West Germany
C. Lacor	Vrije Universiteit, Brussels, Belgium
M. Lang	Bliestransbach, West Germany
E. Lewis	Bristol University, UK
H.M. Lidell	University of London, UK
J. Linden	GMD-F1, St. Augustin, West Germany
G. Lonsdale	University of Manchester, UK
R. Lorentz	GMD-F1, St. Augustin, West Germany
A. Luntz	Israel Aircraft Industries, Lod, Israel
J.F. Maitre	Ecole centrale de Lyon, France
J. Mandel	Charles University, Prague, CSSR
T. Merschen	IBM Deutschland, Böblingen, West Germany
J. Meyer	Universität Stuttgart, West Germany
H. Mierendorff	GMD-F2, St. Augustin, West Germany
H.D. Mittelmann	Arizona State University, Tempe AZ, USA
K. Morgan	University College of Swansea, UK
Z.P. Nowak	Universität Kiel, West Germany
K.-D. Oertel	GMD-F1, St. Augustin, West Germany
V. Pau	University of Bristol, UK
F. Le Piver	Commissariat a l'Energie Atomique, Villeneuve-St-Georges, France
P. Peisker	Ruhr Universität Bochum, Math. Institut, West Germany
J. Periaux	Avions Marcel Dassault, St. Cloud, France
A. Polster	Universität Erlangen-Nürnberg, West Germany
P. Puiseux	Societe Nationale ELF-Aquitaine, Pau, France
R. Rabenstein	Universität Erlangen-Nürnberg, West Germany
H.-J. Reinhardt	Battelle Institut, Frankfurt, West Germany
K. D. Reinartz	Universität Erlangen-Nürnberg, West Germany
A. Reusken	Rijksuniversiteit Utrecht, The Netherlands
U. van Rienen	Deutsches Elektronen Synchrotron, Hamburg, West Germany

R. Roche	Universite de Nancy I, France
D. Ron	Weizmann Institute of Science, Rehovot, Israel
S. Rothe	Hahn-Meitner Institut für Kernforschung, Berlin
U. Rüde	Technische Universität München, West Germany
J. Ruge	University of Colorado at Denver, USA
B. Ruttmann	GMD-F1, St. Augustin, West Germany
K.-Th. Schleicher	Technische Hochschule Darmstadt, West Germany
G.H. Schmidt	Koninklijke/Shell, Rijswijk, The Netherlands
C. Schneider	Universität Mainz, West Germany
W. Schröder	Technische Hochschule Aachen, West Germany
A. Schüller	GMD-F1, St. Augustin, West Germany
E.E. Schulman	Eta Systems Inc., Boulder CO, USA
M. Schulte	Universität Bielefeld, West Germany
H. Schütz	Technische Universität Berlin, West Germany
H. Schwichtenberg	GMD-F1, St. Augustin, West Germany
W. Seidl	Universität Erlangen-Nürnberg, West Germany
M. Smoch	Universität Münster, West Germany
K. Solchenbach	GMD-F1, St. Augustin, West Germany
S.P. Spekrijse	C.W.I, Amsterdam, The Netherlands
B. Steffen	Kernforschungsanlage Jülich, West Germany
H.J. Stetter	Technische Universität Wien, Austria
B. Stoufflet	Avion Marcel-Dassault, St. Cloud, France
H. Ströll	Universität Erlangen-Nürnberg, West Germany
K. Stüben	GMD-F1, St. Augustin, West Germany
Sh. Ta'asan	ICASE, Hampton VA, USA
G. Thierauf	Universität Essen, West Germany
C.A. Thole	GMD-F1, St. Augustin, West Germany
U. Trottenberg	GMD-F1, St. Augustin, West Germany
P. Vassilevski	Bulgarian Academy of Sciences, Sofia, Bulgaria
R. Verfürth	Ruhr Universität Bochum, Math. Institut, West Germany
J. Volkert	Universität Erlangen-Nürnberg, West Germany
C. Vogt	GMD-F1, St. Augustin, West Germany
B. Wagner	Dornier GmbH, Friedrichshafen, West Germany
Herr Walter	Universität des Saarlandes, Saarbrücken, West Germany
A.J. van der Wees	National Aerospace Laboratory, Amsterdam, The Netherlands
P. Wesseling	Delft University of Technology, The Netherlands
D. Wessels	Universität Münster, West Germany
G. Winter	GMD-F1, St. Augustin, West Germany
G. Wittum	Universität Kiel, West Germany
K. Witsch	Universität Düsseldorf, West Germany
J.J. Wu	European Research Office, London, UK
H. Yserentant	Technische Hochschule Aachen, West Germany
Ch. Zenger	Technische Universität München, West Germany