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# **Numerical Flow Simulation II**

CNRS-DFG Collaborative Research  
Programmes Results  
1998 – 2000

by Ernst Heinrich Hirschel (Ed.)



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# Numerical Flow Simulation Ii Cnrsdfg Collaborative Research Programme Results 19982000

**Werner Haase, Bertrand Aupoix, Ulf  
Bunge, Dieter Schwamborn**



## **Numerical Flow Simulation II Cnrsdfg Collaborative Research Programme Results 19982000:**

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**New Results in Numerical and Experimental Fluid Mechanics V** Hans Josef Rath, Carsten Holze, Hans-Joachim Heinemann, Rolf Henke, Heinz Hönlinger, 2007-12-10 This volume collects contributions to the 14th Symposium of the STAB German Aerospace Aerodynamics Association The association involves German scientists and engineers from universities research establishments and industry who are doing research and project work in numerical and experimental fluid mechanics and aerodynamics mainly for aerospace but for other applications too The volume gives a broad overview of ongoing work in Germany in this field

**FLOMANIA - A European Initiative on Flow Physics Modelling** Werner Haase, Bertrand Aupoix, Ulf Bunge, Dieter Schwamborn, 2006-10-02 This volume offers of the EU funded 5th Framework project FLOMANIA Flow Physics Modelling An Integrated Approach The book presents an introduction to the project exhibits partners methods and approaches and provides comprehensive reports of all applications treated in the project A complete chapter is devoted to a description of turbulence models used by the partners together with a section on lessons learned accompanied by a comprehensive list of references

Computational Science and High Performance Computing II Egon Krause, Yurii I. Shokin, Nina Shokina, 2006-06-18 This volume contains 27 contributions to the Second Russian German Advanced Research Workshop on Computational Science and High Performance Computing presented in March 2005 at Stuttgart Germany Contributions range from computer science mathematics and high performance computing to applications in mechanical and aerospace engineering

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results provide insights into modern prediction approaches for turbulent flows and noise generation mechanisms as well as their use for novel noise reduction concepts

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**MEGADESIGN and MegaOpt - German Initiatives for Aerodynamic Simulation and Optimization in Aircraft Design** Norbert Kroll, Dieter Schwamborn, Klaus Becker, Herbert Rieger, Frank Thiele, 2009-11-18 This volume contains results of the German CFD initiative MEGADESIGN which combines CFD development activities from DLR universities and aircraft industry Based on the DLR flow solvers FLOWer and TAU the main objectives of the four years project is to ensure the prediction accuracy with a guaranteed error bandwidth for certain aircraft configurations at design conditions to reduce the simulation turn around time for large scale applications significantly to improve the reliability of the flow solvers for full aircraft configurations in the complete flight regime to extend the flow solvers to allow for multidisciplinary simulations and to establish numerical shape optimization as a vital tool within the aircraft design process This volume highlights recent improvements and enhancements of the flow solvers as well as new developments with respect to aerodynamic and multidisciplinary shape optimization Improved

numerical simulation capabilities are demonstrated by several industrial applications      New Developments in Computational Fluid Dynamics Kozo Fujii, Kazuhiro Nakahashi, Shigeru Obayashi, Satoko Komurasaki, 2006-01-05 Contains 20 papers presented at the Sixth International Nobeyama Workshop on the New Century of Computational Fluid Dynamics Nobeyama Japan April 21-24 2003 These papers cover computational electromagnetics astrophysical topics CFD research and applications in general large eddy simulation mesh generation topics visualization and more      New Results in Numerical and Experimental Fluid Mechanics III Siegfried Wagner, Ulrich Rist, Hans-Joachim Heinemann, Reinhard Hilbig, 2012-09-07 This volume contains the papers of a German symposium dealing with research and project work in numerical and experimental aerodynamics and fluidmechanics for aerospace and other applications It gives a broad overview over the ongoing work in this field in Germany

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