



MEGADESIGN and MegaOpt - German Initiatives for Aerodynamic Simulation and Optimization in Aircraft Design Results of the closing symposium of the Fluid Mechanics and Multidisciplinary Design

By -

Springer. Hardcover. Book Condition: New. Hardcover. 313 pages. Dimensions: 9.4in. x 6.4in. x 0.9in. Over the last decade, Computational Fluid Dynamics (CFD) has become a mature technology for the development of new products in aeronautical industry. Aerodynamic design engineers have progressively taken advantage of the possibilities offered by the numerical solution of the Reynolds averaged Navier-Stokes (RANS) equations. Significant improvements in physical modeling and solution algorithms as well as the enormous increase of computer power enable high fidelity numerical simulations in all stages of aircraft development. In Germany, the national CFD project MEGAFLOW furthered the development and availability of RANS solvers for the prediction of complex flow problems significantly. MEGAFLOW was initiated by the aviation research program of the Federal Government in 1995 under the leadership of the DLR (see Kroll, N., Fassbender, J. K. (Eds.): MEGAFLOW Numerical Flow Simulation for Aircraft Design; Notes on Numerical Fluid Mechanics and Multidisciplinary Design, Volume 89, Springer, 2005). A network from aircraft industry, DLR and several universities was created with the goal to focus and direct development activities for numerical flow simulation towards a common aerodynamic simulation system providing both a block-structured (FLOWer-Code) and a hybrid (TAU-Code) parallel flow prediction capability. Today, both codes have reached a high level of maturity and reliability. They are routinely used at DLR...

Reviews

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This ebook is very gripping and intriguing. I have got read through and I also am confident that I will gonna read through yet again again down the road. It's been written in an extremely straightforward way and it is merely right after I finished reading this book through which actually altered me, alter the way I really believe.

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