Computational Study of Separating Flow in a Planar Subsonic Diffuser

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BiblioGov. Paperback. Book Condition: New. This item is printed on demand. Paperback. 32 pages. Dimensions: 9.7in. x 7.4in. x 0.1in.A computational study of the separated flow through a 2-D asymmetric subsonic diffuser has been performed. The Wind Computational Fluid Dynamics code is used to predict the separation and reattachment behavior for an incompressible diffuser flow. The diffuser inlet flow is a two-dimensional, turbulent, and fully-developed channel flow with a Reynolds number of 20, 000 based on the centerline velocity and the channel height. Wind solutions computed with the Menter SST, Chien k-epsilon, Spalart-Allmaras and Explicit Algebraic Reynolds Stress turbulence models are compared with experimentally measured velocity profiles and skin friction along the upper and lower walls. In addition to the turbulence model study, the effects of grid resolution and use of wall functions were investigated. The grid studies varied the number of grid points across the diffuser and varied the initial wall spacing from y(sup) 0. 2 to 60. The wall function study assessed the applicability of wall functions for analysis of separated flow. The SST and Explicit Algebraic Stress models provide the best agreement with experimental data, and it is recommended wall functions should only be used with...

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This book is definitely not straightforward to get started on studying but extremely exciting to read. It is really simplistic but shocks in the 50 percent of the ebook. Once you begin to read the book, it is extremely difficult to leave it before concluding.
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This publication is amazing. It is definitely basic but shocks in the fifty percent of your publication. You wont feel monotony at anytime of your own time (that's what catalogues are for concerning if you question me).
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