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viscosity model for numerical simulation of three-dimensional turbulent boundary layer; Chapter 12. A priori evaluation of non-linear models for turbulent incompressible flows

Chapter 13. A linearised turbulent production in the k-e model for engineering applications

Chapter 14. Direct test of Boussinesq's hypothesis and the K-transport equation using experimental, DNS and LES data; Chapter 15. Application of generalized wall function for complex turbulent flows; Chapter 16. Extensions of the Spalart-Allmaras turbulence model to account for wall roughness; Chapter 17. The prediction of turbulent duct flow with surface roughness using k-e models; Chapter 18. Effect of a compressibility correction on different turbulence models

Part 3: Direct and Large-Eddy Simulations

Chapter 19. Direct numerical and large eddy simulations of turbulent flows through concentric annuli; Chapter 20. Large eddy simulation of turbulent compressible channel flow over riblets; Chapter 21. Numerical study of unsteady wake flows over a hill for the oncoming boundary-layer turbulence; Chapter 22. Dynamic subgrid-scale models in rotating turbulence; Chapter 23. A mixed-time-scale SGS model with fixed model-parameters for practical LES; Chapter 24. Numerical study on the difference of the eddy structures between plane and round impinging jets

Chapter 25. Large Eddy Simulations of plane turbulent impinging jets at moderate Reynolds numbers

Chapter 26. LES, Coarse LES, and transient RANS comparisons on the flow across a tube bundle; Chapter 27. An approach to hybrid RANS/LES calculation of channel flows; Chapter 28. Interaction of the inner and outer layers in Large-Eddy Simulations with wall-layer models; Chapter 29. A priori studies of a near-wall RANS model within a hybrid LES/RANS scheme; Chapter 30. LES of aero-optical effects on a turbulent boundary layer

Chapter 31. Hybrid LES/RANS simulation of melt convection during crystal growth

Sommario/riassunto

Turbulence is one of the key issues in tackling engineering flow problems. As powerful computers and accurate numerical methods are now available for solving the flow equations, and since engineering applications nearly always involve turbulence effects, the reliability of CFD analysis depends increasingly on the performance of the turbulence models. This series of symposia provides a forum for presenting and discussing new developments in the area of turbulence modelling and measurements, with particular emphasis on engineering-related problems. The papers in this set of proceedings

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