

Haase, Werner (ed.); Aupoix, Bertrand (ed.); Bunge, Ulf (ed.); Schwaborn, Dieter (ed.) FLOMANIA - a European initiative on flow physics modelling. Results of the European-Union funded project, 2002 - 2004. (English) [Zbl 1100.76001](#)

[Notes on Numerical Fluid Mechanics and Multidisciplinary Design](#) (NNFM) 94. Berlin: Springer (ISBN 3-540-28786-8/hbk). xi, 433 p. (2006).

This volume contains results gained from the EU-funded 5th Framework project, FLOMANIA (Flow Physics Modelling – An Integrated Approach). 17 European organisations, industry, research, and universities, have collaborated on topics of improvement of existing methods, investigation and integration of differential Reynolds stress models for aeronautical applications and modelling of detached-eddy simulations (DES). The book presents an introduction to the project, exhibits partners' methods and approaches, and provides comprehensive reports (i.e. definition as well as results) of all applications treated in the project. Moreover, a complete chapter is devoted to turbulence models used by the partners together with a section on lessons learnt – accompanied by a comprehensive list of references.

Reviewer: [Nina Shokina \(Stuttgart\)](#)

MSC:

- [76-02](#) Research exposition (monographs, survey articles) pertaining to fluid mechanics
- [76F02](#) Fundamentals of turbulence
- [76F40](#) Turbulent boundary layers
- [76F60](#) k - ε modeling in turbulence
- [76F65](#) Direct numerical and large eddy simulation of turbulence

Cited in 1 Review
Cited in 9 Documents

Keywords:

[computational fluid dynamics](#); [detached-eddy simulations](#); [differential Reynolds-stress models](#)

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