

INNOVATIVE METHODS FOR FLUID-STRUCTURE INTERACTION

**E. HARALD VAN BRUMMELEN^{*}, TROND KVAMSDAL[†]
AND ROGER OHAYON[‡]**

^{*} Eindhoven University of Technology, PO Box 513, 5600 MB Eindhoven, The Netherlands
e.h.v.brummelen@tue.nl, www.tue.nl/vanbrummelen

[†] NTNU - Trondheim, Department of Mathematical Sciences, NO-7491 Trondheim, Norway
trond.kvamsdal@math.ntnu.no

[‡] CNAM, Structural Mechanics and Coupled Systems Laboratory, Rue Conte 2, 75003 Paris, France
ohayon@cnam.fr

Key words: Fluid-structure interaction, methods and algorithms, adaptive methods, reduced-order models, iterative solution methods, multiscale techniques

ABSTRACT

The objective of this Mini Symposium is to discuss progress and recent achievements in the numerical computation of fluid-structure-interaction problems, with an emphasis on new innovative methods and algorithms leading to faster, more accurate predictions and improved software design. The envisaged range of applications spans (but is not limited to) aero-elasticity, hydro-elasticity, biomechanical FSI and noise/structural acoustics. In particular, we welcome contributions in the vanguard of error estimation, adaptive methods, multiscale models, reduced order models, novel iterative techniques and software engineering for fluid-structure interaction problems.