



INTERNATIONAL WORKSHOP ON COUPLED METHODS IN NUMERICAL DYNAMICS



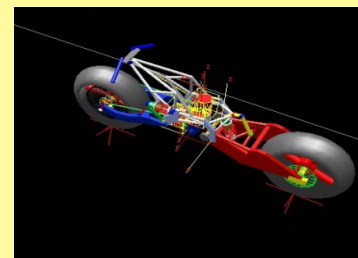
Inter-University Centre Dubrovnik, Dubrovnik, Croatia, September 19.-21. 2007

*Under the auspices of
Croatian Ministry of Science, Education and Sport,
University of Zagreb,
Croatian Academy of Engineering*

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University of Brussels (VUB), the NUSIC Grant Holder;
Faculty of Mechanical Engineering and Naval Architecture (Zagreb),
Croatia Airlines*

Rationale

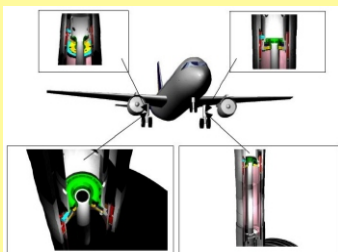
In the wake of fast development of new technologies, many areas of contemporary engineering, that were conventionally divided or loosely coupled in the previous times, merge together to meet new challenges. This is very evident specially in the area of contemporary dynamics, since engineering dynamics is a fundamental technical discipline that serves as a starting point of many rising technologies in aerospace engineering, mechanical engineering and naval architecture as well as many other related disciplines.



By having its origin in continuum mechanics, engineering dynamics is very often 'theoretical common ground' to various technologies in different areas of technical application. In the framework of this environment, by using numerical simulation technologies, it is possible today to model, analyze and design complex engineering systems by utilizing mathematical models and methodologies that classically belonged to different fields of applied sciences. Of course, these possibilities bring up new application opportunities but also give possibility of gaining new understandings of fundamental physical phenomena. However, successful implementation of advanced numerical methodologies in domain of coupled problems of contemporary engineering dynamics rise many questions in terms of proper use of specific methodologies.

Since studying of these phenomena requires modelling of different types of systems and continuum that come into dynamic interaction like deformable structures and fluid flow in aeroelastic and hydroelastic applications or multibody systems with unilateral constraints and aerodynamic loadings, many approaches attempt to synthesize optimal methodologies combining different modelling techniques of computational mechanics. With development and coupling of existing methods and modelling procedures, the use of numerical simulation tools is changing from the traditional 'physics-based' approach towards the 'application-based' view, where several physical models co-exist and interact within the same simulation procedure.

Objective

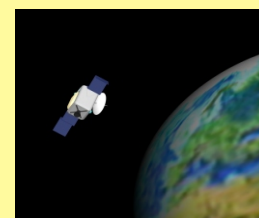


The objective of the workshop is to get together distinguished academics and industrial experts to deliver invited lectures on different aspects of modelling of coupled problems in numerical dynamics. The aim is to discuss relevant issues in the field and disseminate expertise to international graduate students of engineering and to researchers.

Aeroelastic applications in aeronautical engineering and aerospace, fluid-structure interaction in mechanical engineering and naval architecture, hydrodynamic applications and topics of flexible multibody dynamics will be covered by invited lectures and submitted presentations.

Audience

The targeted audience are graduate students of aerospace engineering, mechanical engineering and naval architecture as well as researchers and engineers from industrial companies active in the field.



Registration Fees (includes admittance to all lectures, social programme and conference package)

Registration Fee: 250 Euro
- for students: 150 Euro

Important dates

Abstract submission: April, 30. 2007.
Full paper submission: May, 31. 2007.

Workshop Committee

Program Chairs

Prof. dr. Chris Lacor, University of Brussels (VUB), Belgium
Prof. dr. Zdravko Terze, University of Zagreb, Croatia

International Programme Committee

Prof. Dr. Peter Eberhard, University of Stuttgart, Germany
Dr. Albrecht Eiber, University of Stuttgart, Germany
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Prof. Dr. Ahmed Shabana, University of Illinois in Chicago, USA
Prof. Dr. Zdravko Virag, University of Zagreb, Croatia
Mr. Dean Vučinić, University of Brussels (VUB), Brussels, Belgium
Prof. Dr. Hinko Wolf, University of Zagreb, Croatia
Prof. Dr. Vedran Žanić, University of Zagreb, Croatia

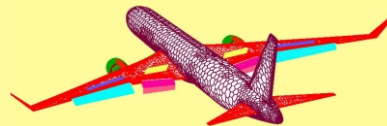
Local Organizing Committee

Faculty of Mechanical Eng. & Naval Arch., Zagreb

Dr. Milan Vrdoljak, Chair
Dubravko Matijašević
Tomislav Mešinović
Nikolina Barišić
Zita Sara Brčić, Secretary

How to get there?

Dubrovnik International Airport*



*The Dubrovnik airport is located in Čilipi, 20 km from the centre of the city.

Info and applications: Web: <http://cmnd2007.fsb.hr> Email: cmnd2007@fsb.hr
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