

Ecole Royale Militaire Avenue de la Renaissance 30 B-1000 Bruxelles

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Koninklijke Militaire School Renaissancelaan 30 B-1000 Brussel



## CONFERENCE PROCEEDINGS

9-10 May 2012

## ROYAL MILITARY ACADEMY

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## FOREWORD

## Dear Attendee,

The Royal Military Academy is a federal university embedded within the Belgian Defence and is among other things responsible for the graduate and post-graduate education of a major part of its officers. Research plays an important role in supporting the educational program. Therefore the Academy is pleased to welcome you on its campus.

It is the intention of the organizers to promote NC-TAM 2012 as a meeting place where scientists and engineers from several communities can meet to discuss current research topics related to mechanics. As a national congress, NCTAM 2012 offers young researchers a first experience as well the opportunity to meet accomplished researchers. It is also the place to foster links at national level, exchange knowledge and dress up the map of national research teams with their respective skils.

This year's 9<sup>th</sup> National Congress is in line with the tradition initiated in 1987. The scope covers all major aspects of mechanics, ranging from theoretical, methodological and scientific developments to a large variety of application areas. Relevant topics for the symposium program include:

- Applied Thermodynamics
- · Biomechanics
- Computational Methods
- Damage
- Education Engineering
- Experimental Techniques
- Fluid mechanics
- Heat transfer and Thermal Analysis
- Kinematics and Dynamics
- Machine Design
- Manufacturing Engineering and Production Systems
- Rheology
- · Mechatronics and Robotics
- Solid Mechanics

- Structural Mechanics
- Theoretical Mechanics
- · Vibration, Noise and Waves

I take this opportunity to thank both the scientific and local organizing committee for all the work done during the preparation and execution of this congress.

Also the support of the National Committee for Theoretical and Applied Mechanics is greatly acknowledged.

Onbehalf of the organizing and scientific committees I wish you a pleasent and fruitful congress,

Walter BOSSCHAERTS Conference Chairman