

Preface

Special Issue dedicated to the papers selected during NOVEM 2015

NOVEM stands for *Noise and Vibration: Emerging Methods*.

It is a series of conferences aimed at promoting scientific exchanges of specialists in the related fields. The goal of each conference is to give an account of emerging technologies in selected areas considered to be major scientific challenges in the fields of

- (i) structural vibration,
- (ii) vibro-acoustics,
- (iii) flow-induced noise and vibration and
- (iv) noise and vibration control.

The contributed papers are always devoted to the essential findings, leaving room for extended discussions. Typically, each day of the conferences focused on an emerging area within a 2-hours long Keynote Forum. Each Forum enabled the selected specialists to expose an up-to-date overview of the relevant area and outline its perspectives.

The past conferences were held in several European countries:

- 2000, *Lyon*, France.
- 2005, *Saint Raphaël*, France.
- 2009, *Oxford*, United Kingdom.
- 2012, *Sorrento*, Italy.
- This year the 5th conference was held in *Dubrovnik*, Croatia.

The next edition of NOVEM is already scheduled in Spain.

I belong to the *NOVEM Committee*, which is actually formed by

- L. CHENG, **Hong-Kong Polytechnic University**, *Hong Kong*, Hong Kong
- O. GUASCH, **Universitat Ramon Llull**, *Barcelona*, Spain
- S. HAMBRIC, **Pennsylvania State University**, *University College*, Pennsylvania, USA
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- J. RENNO, **Institute of Sound and Vibration Research (ISVR)**, *Southampton*, UK
- N. TOTARO, **National Institute of Applied Sciences (INSA)**, *Lyon*, France

For the 2015 Edition, the *NOVEM Committee* has offered the Journal to consider publishing selected papers. The selection was made in several steps. At the beginning, by looking at the abstracts and the full papers, a number of works were identified, which were potentially interesting for the aerospace fields. The candidate papers were pre-selected by the Committee, while the final selection was done following the oral presentations. The selected papers were then amended by the authors, to comply with the Journal requirements. The works were modified accordingly to the comments received before, during and after the conference; thus they were sent out for revision, as usual, to anonymous reviewers. Of the 13 papers initially taken under consideration, 7 arrived at

being published in this Special Issue, which is the result of this procedure.

The 7 papers, here collected, can be divided in four main categories: fluid-structure interaction [1-2], passive control [3], predictive methodologies [4-5] and analysis of new materials in terms of increased damping and augmented noise control [6-7]. They reflect the major themes of the research fields in aircraft and spacecraft development and design, always devoted to get the best performances at lowest possible weight. This Special Issue can give a small but robust contribution to the state-of-the-art of these fields in industry as well as in the research centers and university: this is our hope, at least.

Finally, I would like to thank

- the members of NOVEM COMMITTEE for letting me the responsibility to manage and coordinate the work behind this issue,
- the *authors* for their valuable contributions,
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- the *Editor-in-Chief* (E. CARRERA) for this opportunity, and
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