

Issue 12
December 2016

Special Issue celebrating
the 70th birthday of ONERA

DOI : 10.12762/2016.AL12

Publisher

Stéphane Andrieux

Editor in Chief

Francis Dupoirieux

Editorial Board

Stéphane Andrieux

Francis Dupoirieux

Philippe Bidaud

Esteban Busso

Laurent Cambier

Laurent Jacquin

Michel Lefebvre

Production

ONERA Scientific

Information Department

On line

www.aerospacelab-journal.com

Webmaster ONERA

Contact

E-mail: aerospacelab@onera.fr

Produced by

ONERA - BP 80100

Chemin de la Hunière

et des Joncherettes

91123 PALAISEAU CEDEX

France

www.onera.fr

ISSN: 2107-6596

Testing in Aerospace Research

AL12-00 - Testing in Aerospace Research: Introduction

S. Andrieux

AL12-01 - Inverse Problems and Experiments: a Fruitful Symbiosis

S. Andrieux

AL12-02 - On Recent Advances in Microstructural Characterization and *In-Situ* Testing Techniques to Study Material Behavior

E. P. Busso, D. Boivin, D. Lévêque

AL12-03 - Combined Experimental and Modeling Approaches for Strength Analysis of 3D Woven Composites: From Elementary Coupons to Complex Aeronautical Structures

A. Hurmane, A. Mavel, P. Paulmier, F. Laurin

AL12-04 - Complex Thermo-Mechanical Approaches to Study the Behavior of High-Temperature Alloy

V. Bonnard, D. Pacou

AL12-05 - Aircraft Ground Vibration Testing at ONERA

S. Giclais, P. Lubrina, C. Stephan

AL12-06 - Testing in Aerodynamics Research at ONERA: the Example of the Transonic Buffet

L. Jacquin, V. Brion, P. Molton, D. Sipp, J. Dandois, S. Deck, F. Sartor, E. Coustols, D. Caruana

AL12-07 - Planar Particle Image Velocimetry for Aerospace Research at ONERA

B. Leclaire, C. Brossard, R. Courtier, F. David, S. Davoust, A. Gilliot, L. Jacquin, J.-M. Jourdan,

O. Léon, S. Masseboeuf, J.-C. Monnier, S. Mouton, E. Piot, A. Ristori, D. Sebbane, F. Simon

AL12-08 - Doppler LIDAR Developments for Aeronautics

C. Besson, A. Dolfi-Bouteyre, G. Canat, N. Cézard, B. Augère, A. Durécu, L. Lombard, M. Valla,

A. Hallermeyer

AL12-09 - Experimental Fluid Mechanics goes 3D: New Numerical Methods for Quantitative Instantaneous 3D Imagery of Fluids

G. Le Besnerais, F. Champagnat, P. Cornic, A. Plyer, B. Leclaire, A. Cheminet, C. Illoul, G. Losfeld,

Y. Le Sant, D. Donjat, F. Nicolas, F. Micheli

AL12-10 - Ro-Vibrational Spectroscopy in Hybrid fs/ps-CARS for N₂ Thermometry

M. Nafa, M. Scherman, A. Bresson, A. Aubin, A. Godard, B. Attal-Tretout, P. Joubert

AL12-11 - Gravitation and Geodesy with Inertial Sensors, from Ground to Space

P. Touboul, G. Métris, H. Sélig, O. Le Traon, A. Bresson, N. Zahzam, B. Christophe, M. Rodrigues

AL12-12 - Radiation Testing of Electronics Systems: How Can Simulation Tools Help in the Definition and Optimization of Test Plans in Labs?

S. Duzellier, J.P. David, C. Inguimbert, T. Nuns, G. Hubert, L. Artola

AL12-13 - Dealing with Complexity through Advanced Control Techniques

P. Bidaud, L. Burlion, H. De Plinval, T. Loquen, J. Marzat, C. Pralet

AL12-14 - Surrogate Models for Aircraft Flight Control: Some Off-Line and Embedded Applications

J.-M. Biannic, G. Hardier, C. Roos, C. Seren, L. Verdier

AL12-15 - Component-Based Simulation for Real-Time Experiments of Advanced Aerospace Systems

B. Hérissé, G. Hervieux, K. Dahia, J.-M. Allard, J.-C. Sarrazin