



Editorial

Composites Part A: Applied Science and Manufacturing

CompTest2011

Composites Testing and Model Identification
International Conference
14–16 February 2011 in Lausanne, Switzerland

The fifth international conference on “Composites Testing and Model Identification” was held in Lausanne, Switzerland from 14–16 February 2011. The venue was the École Polytechnique Fédérale de Lausanne (EPFL) (<http://www.epfl.ch>). The three day meeting attracted 88 attendees representing 17 countries worldwide. The proceedings, list of attendees and some photographs can be found at: <http://archiveweb.epfl.ch/comptest2011.epfl.ch/>. The previous conferences were held in Châlons-en-Champagne (France) in January 2003, in Bristol (UK) in September 2004, in Porto (Portugal) in April 2006 and in Dayton Ohio (USA) in October 2008.

As for the other CompTests, the objectives of the conference were twofold.

It was intended firstly to be a forum for the scientific community working on testing of composite materials and structures, and to *promote interaction between modelling and experimentation* in so far as very often, testing is performed to measure the parameters of a model, hence the “model identification” term in the title of the conference. Therefore, CompTest aimed at covering the full range of testing activities including the parts where models are identified and/or validated.

The second essential motivation that triggered CompTest was that very powerful experimental tools are now beginning to be available, such as optical full-field measurements, optical fibres, infrared cameras, 3D tomography etc., with the common feature that they provide very extensive experimental data. As a consequence, the idea was to put forward *new and innovative experimental procedures* taking full advantage of such techniques to improve testing methodologies.

The conference technical programme included 44 oral presentations organized into 11 sessions, and 26 poster presentations spread over 5 special sessions. The range of presentations was very wide, with sessions on “Delamination”, “Damage Models”, “Optical Methods”, “Textile Composites”, “Fatigue”, “Processing”, “Structures”, and “Testing and Simulation”.

In addition, three invited lectures aimed at giving the flavour of the conference. As is now customary for the CompTest conference series, one of the invited lectures was given by an industry-based researcher. Dr. Michel Guillaume from Ruag Aviation, Switzerland, gave the invited lecture entitled “*The challenge of Large Composite Transport Airplanes*”.

The second invited lecture entitled “*The Role of Scaled Tests in Evaluating Models of Failure*” was given by Professor Michael Wisnom, from Bristol University, England. The third invited lecture

was presented by Professor Stéphane Roux from ENS Cachan, France, on “*Advances in Digital Image Correlation*”.

Excellent technical discussions took place in the sessions but also during the breaks and around the posters. With the number of participants, presentations and discussions, CompTest2011 was a success.

We would like to take the opportunity here to thank all the people who made CompTest2008 possible, in particular the local organising committee: Dr. Joel Cugnoni, Mr. Jeannot Frieden, Mr. Marco Lai, Mr. Samuel Stutz and Mrs. Viviane Magnenat. We would also like to acknowledge the help of the scientific committee who dedicated their time and efforts to review the abstracts and promote the event.

The selection of the papers that appear in this special issue has been performed according to the reviews of the extended abstracts and the presentation. The authors concerned have then been asked if they would like to submit a full-length paper and this procedure led to the acceptance of 8 papers after the normal review process with two reviewers. The papers cover the range of themes that appeared at the conference and give a very good flavour of the spirit of CompTest2011. CompTest2013 will be held at the University of Aalborg, Denmark, 22–24 April 2013 (www.CompTest2013.dk).

John Botsis

(CompTest2011 Co-Chairman and Guest Editor)

Institute of Mechanical Engineering, LMAF, Station 9, École Polytechnique Fédérale de Lausanne (EPFL), CH 1015 Lausanne, Switzerland

E-mail address: john.botsis@epfl.ch

Thomas Gmür

(CompTest2011 Co-Chairman)

Institute of Mechanical Engineering, LMAF, Station 9, École Polytechnique Fédérale de Lausanne (EPFL), CH 1015 Lausanne, Switzerland

E-mail address: thomas.gmuer@epfl.ch

Michael R. Wisnom

(CompTest2011 Vice-Chairman)

Advanced Composites Centre for Innovation and Science (ACCIS),
University of Bristol, University Walk, Bristol BS8 1TR, UK

E-mail address: M.Wisnom@bristol.ac.uk

Fabrice Pierron

(CompTest2011 Vice-Chairman)

Arts et Métiers ParisTech, Rue St Dominique, BP 508, 51006 Châlons-en-Champagne Cedex, France

E-mail address: fabrice.pierron@chalons.ensam.fr