modelling **Q** prognosis လ ဂ site materials \square multi-field ഗ ດງ res hea damage ternationa \cap \cap mo ጠ Б buu D ອີ່ງ testing ດີglobal-local manufacturing

Reference Book

Composite Materials and Structures in Aerospace Engineering. Edited by E. Carrera. Trans Tech Publications, 2016

Upcoming Events

FULLCOMP Special Session at the 19th Internacional Conference on Compositie Structures (ICCS19), 5-9 September 2016, Porto, Portugal

CISM Course on Computational Methods for the Analysis, Design, and Failure of Composites, 3-7 April 2017, Udine, Italy DESIGN, MANUFACTURING AND HEALTH-MONITORING OF COMPOSITE STRUCTURES

> A project under European Union's Horizon 2020 research and innovation program

> Marie Skłodowska-Curie actions grant agreement no. 642121

Visit our website **www.fullcomp.net**



Contacts

Professor Erasmo Carrera erasmo.carrera@polito.it





Work-packages

- 1. Project management and network coordination
- 2. Analysis and computational methods
- 3. Design and optimization
- 4. Damage and failure analysis
- 5. Health-Monitoring, repairing and NDT
- 6. Multiscale Methods
- 7. Manufacturing and experimental approaches
- 8. Entrepreneurship
- 9. Dissemination and transfer of knowledge
- 10. Recruitment and training

H2020 Marie Skłodowska-Curie Actions European Training Networks



FullCOMP in Figures: 3M € Budget 4 Years project 7 Universities • 1 Research Centre 1 Company 12 PhD Students

The FULLCOMP project is funded by the European Commission under a Marie Sklodowska-Curie Innovative Training Networks grant for European Training Networks (ETN). FULLCOMP provides intersectoral, interdisciplinary and international training to Early Stage Researchers (ESRs). The FULLCOMP consortium is composed of 7 Universities - Politecnico di Torino (Italy), University of Bristol (UK), Ecole Nationale Superieure d'arts et Metiers (Bordeaux, France), University of Hannover (Germany), University of Porto (Portugal), University of Washington (USA), RMIT (Australia), 1 research institute (Luxembourg Institute of Technology) and 1 company (Elan-Ausy, Hamburg, Germany). FULLCOMP recruited 12 PhD students who are working in an international framework to develop integrated analysis tools to improve the design of composite structures. The full spectrum of the design of composite structures is dealt with, such as manufacturing, healthmonitoring, failure, modeling, multiscale approaches, testing, prognosis, and prognostic. The FULLCOMP research activity is aimed at many engineering fields, e.g. aeronautics, automotive, mechanical, wind energy, and space.

Partners

Politecnico di Torino Prof. Erasmo Carrera



University of Bristol Prof. Paul Weaver

Ecole Nationale Superieure

d'Arts et Metiers Prof. Frederic Dau





Leibniz Universität Hannover **Prof. Raimund Rolfes**

Luxembourg Institute of Science and Technology Dr. Gaetano Giunta



ELAN-AUSY GmbH ELAN-AUSY

Universidade do Porto Prof. António Mendes Ferreira



Dr. Steffen Czichon

W UNIVERSITY of WASHINGTON

University of Washington Prof. Anthony Waas

UNIVERSITY

Royal Melbourne Institute of Technology Prof. Adrian Mouritz



ESR1 - Li Guohong

Variable, mixed, linear and nonlinear kinematic shell formulations

ESR2 - Alberto García de Miguel

Diagnostic and prognostic of composite structures and computational multi-scale approaches

ESR3 - Ibrahim Kaleel

Impact Response through a variable kinematic component-wise approach based on Carrera Unified Formulation

ESR4 - Margarita Akterskaia

Failure analysis of composite structures through globallocal methods

ESR5 - Sander van den Brook Reduced-order models and probabilistic analysis for nonlinear structural analysis of composite structures

ESR6 - Yanchuan Hui

Multi-scale modelling and design of composite structures

ESR7 - Gabriele De Pietro Modelling and design of multi-stable composite structures

ESR8 - Sergio Minera Buckling of Thin-Walled shells using Carrera Unified Formulation

ESR9 - Mayank Patni 3D stress fields in localized areas of stiffened panels: stringer terminations and rib-foot connectors

ESR10 - Lorenzo Cappelli Durability of thermoplastic composite and variability effects

ESR11 - Pietro del Sorbo

Multi-scale approachs using an original discrete element method for the treatment of impact on dry textile

ESR12 - Georgios Balokas

Advanced methods for design, sizing and manufacturing of composite structures in aerospace applications