



Professor Adrain C. Orifici

Post-buckling damage growth of stiffened composite panel

See:

<http://scholar.google.com/citations?user=hCQtd08AAAAJ&hl=th>

http://www.researchgate.net/profile/Adrian_Orifici

<https://www.youtube.com/watch?v=9x7Hqn-5WZc>

<http://65.54.113.26/Author/3996534/adrian-c-orifici>

<https://www.infona.pl/contributor/0@bwmeta1.element.elsevier-ad9cd8f3-b9fe-3cdf-80be-7fa9cf18ac3f/tab/publications>

Senior Lecturer

Deputy Head, Learning & Teaching

Aerospace Mechanics and Manufacturing Engineering

Royal Melbourne Institute of Technology (RMIT) Melbourne, Australia

Research Interests:

Aerospace structures, composite materials, finite element analysis

Biography:

Dr Orifici is responsible for teaching activities in the field of aerospace structures and design, and his research involves the design and analysis of aerospace structures with a focus on fibre-reinforced composite materials. His current research work includes composite damage modelling, postbuckling aircraft structures, multi-axial material characterisation and composite aircraft repair. Dr Orifici has significant experience in advanced nonlinear finite element (FE) analysis across a wide range of software packages including MSC.Patran/Nastran, Abaqus Standard/Explicit and MSC.Marc. Dr Orifici has worked on implementing user-defined behaviour into FE packages using custom subroutines, and in developing

in-house software tools for design and certification of aerospace structures. He is responsible for the supervision of undergraduate and postgraduate students, and has over 50 publications in the field of aerospace structures and composite materials that can be found at Google Scholar and RMIT Research Repository.

Education:

PhD (Aerospace Engineering), RMIT University, 2007

BEng (Aerospace) 1st Class Honours, RMIT University, 2003

Awards and Recognition:

2014, ICAS John J. Green Award, from International Council of the Aeronautical Sciences, for “outstanding activities and intellectual performance in International Collaboration in the field of aeronautic cooperations”

2012, Vice Chancellor's Research Excellence - Early Career Researcher Award for the top early career researcher at RMIT Course Coordinator and sole lecturer for AERO2359, which was recognised for outstanding achievement based on student surveys on course content and teaching quality every year from 2009-2013.

2010, Finalist, Australian Industry Defence Network, Young Achiever Award

2009, RMIT School of Aerospace, Mechanical and Manufacturing Engineering Award for outstanding service in teaching and research

2007, “Highly Commended Paper” Prize at the 12th Australian International Aerospace Congress, 19-22 March 2007, (first author)

2007, Letter of commendation for PhD thesis from RMIT University after independent reviewers' comments, for work “strongly competitive at an international level”.

Selected Publications:

AC Orifici, I Herszberg, RS Thomson, “Review of methodologies for composite material modelling incorporating failure”, *Composite Structures*, Vol. 86, No. 1, pp 194-210, November 2008

R Degenhardt, A Kling, K Rohwer, AC Orifici, RS Thomson, “Design and analysis of stiffened composite panels including post-buckling and collapse”, *Computers & Structures* 86 (9), 919-929, 2008

AC Orifici, RS Thomson, R Degenhardt, A Kling, K Rohwer, J Bayandor, “Degradation investigation in a postbuckling composite stiffened fuselage panel”, *Composite Structures* 82 (2), 217-224, 2008

AC Orifici, IO de Zarate Alberdi, RS Thomson, J Bayandor, “Compression and post-buckling damage growth and collapse analysis of flat composite stiffened panels”, *Composites Science and Technology* 68 (15), 3150-3160, 2008

AC Orifici, SA Shah, I Herszberg, A Kotler, T Weller, “Failure analysis in postbuckled composite T-sections”, *Composite Structures* 86 (1), 146-153, 2008

AC Orifici, RS Thomson, I Herszberg, T Weller, R Degenhardt, J Bayandor, “An analysis methodology for failure in postbuckling skin–stiffener interfaces”, *Composite Structures* 86 (1), 186-193, 2008

AC Orifici, RS Thomson, AJ Gunnion, R Degenhardt, H Abramovich, ..., “Benchmark finite element simulations of postbuckling composite stiffened panels”, 11th Australian International Aerospace Congress, 03-13, 2005

AC Orifici, RS Thomson, R Degenhardt, C Bisagni, J Bayandor, “A finite element methodology for analysing degradation and collapse in postbuckling composite aerospace structures”, *Journal of composite materials* 43 (26), 3239-3263, 2009

AC Orifici, C Bisagni, “Perturbation-based imperfection analysis for composite cylindrical shells buckling in compression”, *Composite structures* 106, 520-528, 2013

S Lauterbach, AC Orifici, W Wagner, C Balzani, H Abramovich, ..., “Damage sensitivity of axially loaded stringer-stiffened curved CFRP panels”, *Composites Science and Technology* 70 (2), 240-248, 2010

AP Herman, AC Orifici, AP Mouritz, “Vibration modal analysis of defects in composite T-stiffened panels”, *Composite Structures* 104, 34-42, 2013

AC Orifici, RS Thomson, R Degenhardt, C Bisagni, J Bayandor, “An analysis tool for design and certification of postbuckling composite aerospace structures”, *International Journal of Structural Stability and Dynamics* 10 (04), 669-681, 2010

DW Kelly, MCW Lee, AC Orifici, RS Thomson, R Degenhard, “Collapse analysis, defect sensitivity and load paths in stiffened shell composite structures”, *Computers, Materials & Continua (CMC)* 10 (2), 163, 2009

AC Orifici, RS Thomson, R Degenhardt, J Bayandor, “The design of postbuckling composite aerospace structures accounting for damage initiation and growth”, 26th Congress of International Council of the Aeronautical Sciences (ICAS), 2008

AC Orifici, S Lauterbach, H Abramovich, RS Thomson, W Wagner, ..., “Analysis of damage sensitivity and collapse in postbuckling fibre-reinforced multi-stiffener panels”, 2nd International Conference on Buckling and Postbuckling Behaviour of ..., 2008