



Professor Mark A. Battley

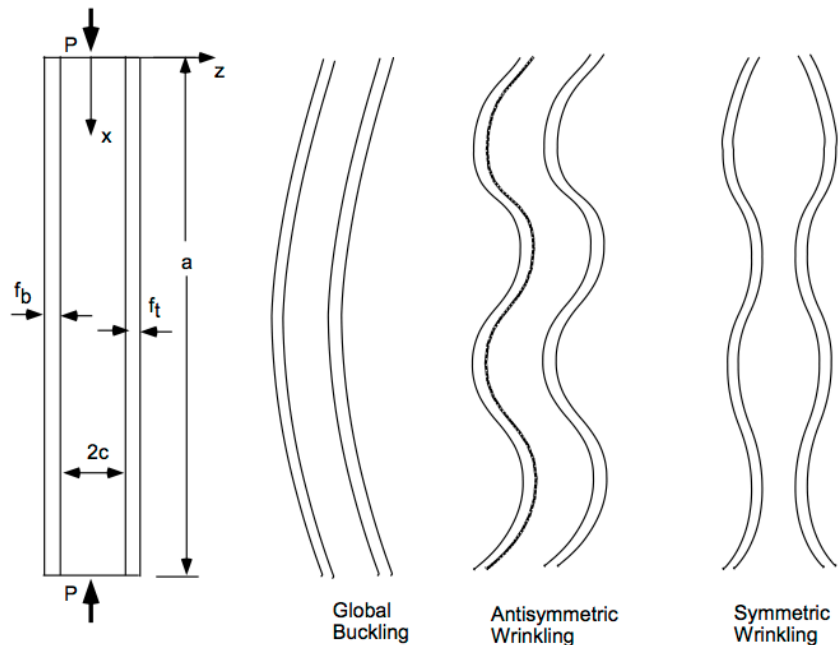


Figure 14: Global Buckling vs Wrinkling.

From: Catherine N. Phan, Nathan W. Bailey, George A. Kardomateas and Mark A Battley, "Wrinkling of sandwich wide panels/beams based on the extended high-order sandwich panel theory: formulation, comparison with elasticity and experiments", *Archive of Applied Mechanics*, Vol. 82, No. 10, pp 1585-1599, October 2012

See:

<https://unidirectory.auckland.ac.nz/profile/m-battley>

https://www.researchgate.net/profile/Mark_Battley

https://scholar.google.co.nz/citations?user=IIR5_MkAAAAJ&hl=en

Engineering Science, Center for Advanced Composite Material (CACM)
The University of Auckland, New Zealand

Biography:

Following his BE (Hons) and PhD at the University of Auckland's Department of Mechanical Engineering, Mark worked as a Research Engineer for Industrial Research Limited from 1992 to 2005. He also worked at the Royal Institute of Technology, Stockholm Sweden from 1995 to 1996. In 2006 Mark joined Uniservices, working for the University of Auckland's Centre for Advanced Composite Materials (CACM) and established Applied Engineering Research Limited. In 2015 Mark joined the Department of Engineering Science at the University of Auckland, also continuing in his role as the Deputy Director of CACM.

Research Interests:

My primary research interests are in novel computational modeling and experimental characterization for materials and structures with complex physical processes. This includes the effects of geometric and material

non-linear behavior, dynamic loads, fluid-structure interaction, and the effects of defects and damage on structural performance, particularly for fibre reinforced polymer composites and sandwich structures. Application areas include aviation, marine, automotive, sporting equipment and building and infrastructure. I also have research interests in sporting equipment and its interaction with athletes, non-destructive inspection methods for materials and structures, and development of novel testing and instrumentation systems for laboratory and in-field measurements. Other interests include additive manufacturing processes for high performance composites and application of digital manufacturing processes to reduce cost and increase product quality.

Selected Publications:

- M. Battley and T. Allen, “Servo-hydraulic system for controlled velocity water impact of marine sandwich panels”, *Experimental Mechanics*, Vol. 52, No. 1, pp 95-106, January 2012
- Catherine N. Phan, Nathan W. Bailey, George A. Kardomateas and Mark A Battley, “Wrinkling of sandwich wide panels/beams based on the extended high-order sandwich panel theory: formulation, comparison with elasticity and experiments”, *Archive of Applied Mechanics*, Vol. 82, No. 10, pp 1585-1599, October 2012
- I. Stenius, A. Rosen, M. Battley and T. Allen, “Experimental hydroelastic characterization of slamming loaded marine panels”, *Ocean Engineering*, Vol. 74, pp 1-15, December 2013
- T. Allen and M. Battley, “Quantification of hydroelasticity in water impacts of flexible composite hull panels”, *Ocean Engineering*, Vol. 100, pp 117-125, May 2015