



Professor Mike Bambach

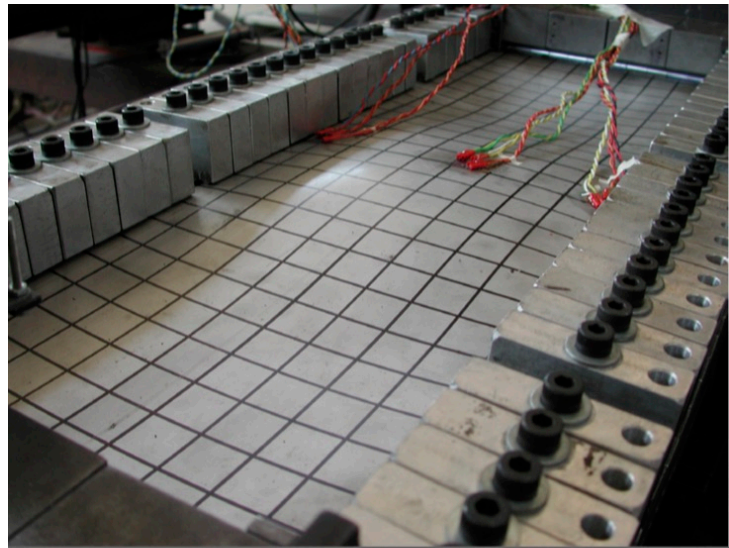


Figure 1 Test of stainless steel single plate

From: Rasmussen, K., Burns, T., Bezkorovainy, P., Bambach, M. (2005).
Recent Research on the Local Buckling of Cold-formed Stainless Steel Sections.
International Journal of Steel Structures, 5, 87-100.

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School of Civil Engineering
The University of Sydney, Australia

Education:

2003 Ph.D Civil Engineering, The University of Sydney

Biography:

Dr. Mike Bambach recently commenced as a Senior Lecturer in Structures. Mike completed a Ph.D. in Structural Engineering at The University of Sydney in 2003. He then worked as a Structural Engineer in Christchurch, New Zealand, as a Lecturer in Civil Engineering at Monash University for 5 years, and most recently as a Senior Research Fellow in the Transport and Road Safety (TARS) Research Centre at UNSW for 5 years. His research interests include thin steel and composite structures, structures subjected to impact and blast loads, vehicle crashworthiness and road crash injury biomechanics.

Selected Publications:

Bambach, M. (2014). Fibre composite strengthening of thin steel passenger vehicle roof structures. *Thin-Walled Structures*, 74, 1-11

Bambach, M. (2014). Plastic mechanism analysis of vehicle roof frames consisting of spot-welded steel hat sections. *Structural Engineering and Mechanics*, 52(6), 1085-1098

Bambach, M. (2014). Strengthening of thin-walled (hollow) steel sections using fibre-reinforced polymer (FRP) composites. In Vistasp M. Karbhari (Eds.), *Rehabilitation of Metallic Civil Infrastructure Using Fiber Reinforced Polymer (FRP) Composites*, (pp. 140-168).

Bambach, M. (2013). Design of metal hollow section tubular columns subjected to transverse blast loads. *Thin-Walled Structures*, 68, 92-105.

Bambach, M. (2013). Fibre composite strengthening of thin-walled steel vehicle crush tubes for frontal collision energy absorption. *Thin-Walled Structures*, 66, 15-22

Bambach, M. (2012). Experiments and design of edge-stiffened plates under stress gradient. *Thin-Walled Structures*, 52, 21-28

Maduliat, S., Bambach, M., Zhao, X. (2012). Inelastic behaviour and design of cold-formed channel sections in bending. *Thin-Walled Structures*, 51, 158-166.

Maduliat, S., Bambach, M., Zhao, X. (2012). Slenderness limits of cold-formed channel sections in bending by experimental methods. *Journal of Constructional Steel Research*, 76, 75-82

Jama, H., Nurick, G., Bambach, M., Grzebieta, R., Zhao, X. (2012). Steel square hollow sections subjected to transverse blast loads. *Thin-Walled Structures*, 53, 109-122.

Maduliat, S., Bambach, M., Zhao, X. (2012). Yield line mechanism analysis of cold-formed channel sections with edge stiffeners under bending. *Structural Engineering and Mechanics*, 42(6), 883-897.

Bambach, M. (2011). Design of hollow and concrete filled steel and stainless steel tubular columns for transverse impact loads. *Thin-Walled Structures*, 49(10), 1251-1260

Bambach, M. (2011). Experiments of edge-stiffened plates in uniform compression. *Thin-Walled Structures*, 49(2), 343-350

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Haedir, J., Zhao, X., Grzebieta, R., Bambach, M. (2011). Strength design of CFRP-reinforced steel tubular beams. 21st Australian Conference on the Mechanics of Structures and Materials, London: CRC Press.

Haedir, J., Zhao, X., Bambach, M., Grzebieta, R. (2010). Analysis of CFRP externally-reinforced steel CHS tubular beams. *Composite Structures*, 92(12), 2992-3001

Bambach, M. (2010). Axial capacity and crushing behavior of metal-fiber square tubes - Steel, stainless steel and aluminum with CFRP. *Composites Part B*, 41(7), 550-559

Bambach, M. (2010). Axial capacity and crushing of thin-walled metal, fibre-epoxy and composite metal-fibre tubes. *Thin-Walled Structures*, 48(6), 440-452

Bambach, M., Zhao, X., Jama, H. (2010). Energy absorbing characteristics of aluminium beams strengthened with CFRP subjected to transverse blast load. *International Journal of Impact Engineering*, 37(1), 37-49

Bambach, M. (2010). Unified Element and Section Approach to Design of Cold-Formed Steel Structures. *Journal of Structural Engineering*, 136(4), 343-353

Bambach, M., Jama, H., Elchalakani, M. (2009). Axial capacity and design of thin-walled steel SHS strengthened with CFRP. *Thin-Walled Structures*, 47(10), 1112-1121

Bambach, M., Elchalakani, M., Zhao, X. (2009). Composite steel-CFRP SHS tubes under axial impact. *Composite Structures*, 87(3), 282-292.

Bambach, M. (2009). Design of uniformly compressed edge-stiffened flanges and sections that contain them. *Thin-Walled Structures*, 47(3), 277-294

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Bambach, M. (2009). Photogrammetry measurements of buckling modes and interactions in channels with edge-stiffened flanges. *Thin-Walled Structures*, 47(5), 485-504.

Bambach, M., Jama, H., Elchalakani, M. (2009). Static and dynamic axial crushing of spot-welded thin-walled composite steel-CFRP square tubes. *International Journal of Impact Engineering*, 36(9), 1083-1094

Bambach, M., Tan, G., Grzebieta, R. (2009). Steel spot-welded hat sections with perforations subjected to large deformation pure bending. *Thin-Walled Structures*, 47(11), 1305-1315

Haedir, J., Bambach, M., Zhao, X., Grzebieta, R. (2009). Strength of circular hollow sections (CHS) tubular beams externally reinforced by carbon FRP sheets in pure bending. *Thin-Walled Structures*, 47(10), 1136-1147.

Bambach, M., Rasmussen, K. (2005). Elastic and Plastic Effective Width Equations for Unstiffened Elements under Stress Gradients. 4th European Conference on Steel and Composite Structures - Eurosteel2005, Aachen, Germany: Druckand Verlagshaus Mainz GmbH Aachen.

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Bambach, M., Rasmussen, K. (2004). Experimental Techniques For Testing Unstiffened Plates In Compression And Bending. *Experimental Mechanics*, 44(1), 91-96.

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Bambach, M., Rasmussen, K. (2004). Tests Of Unstiffened Plate Elements Under Combined Compression And Bending. *Journal of Structural Engineering*, 130(10), 1602-1610.

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Bambach, M., Rasmussen, K. (2003). New Design Provisions For Sections Containing Unstiffened Elements With Stress Gradient. *International Conference on Advances in Structures (ASSCCA 2003)*, The Netherlands: A A Balkema.

Rasmussen, K., Burns, T., Bezkorovainy, P., Bambach, M. (2003). Numerical modelling of stainless steel plates in compression. *Journal of Constructional Steel Research*, 59(11), 1345-1362.

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