



Dr. Mingcai Xu

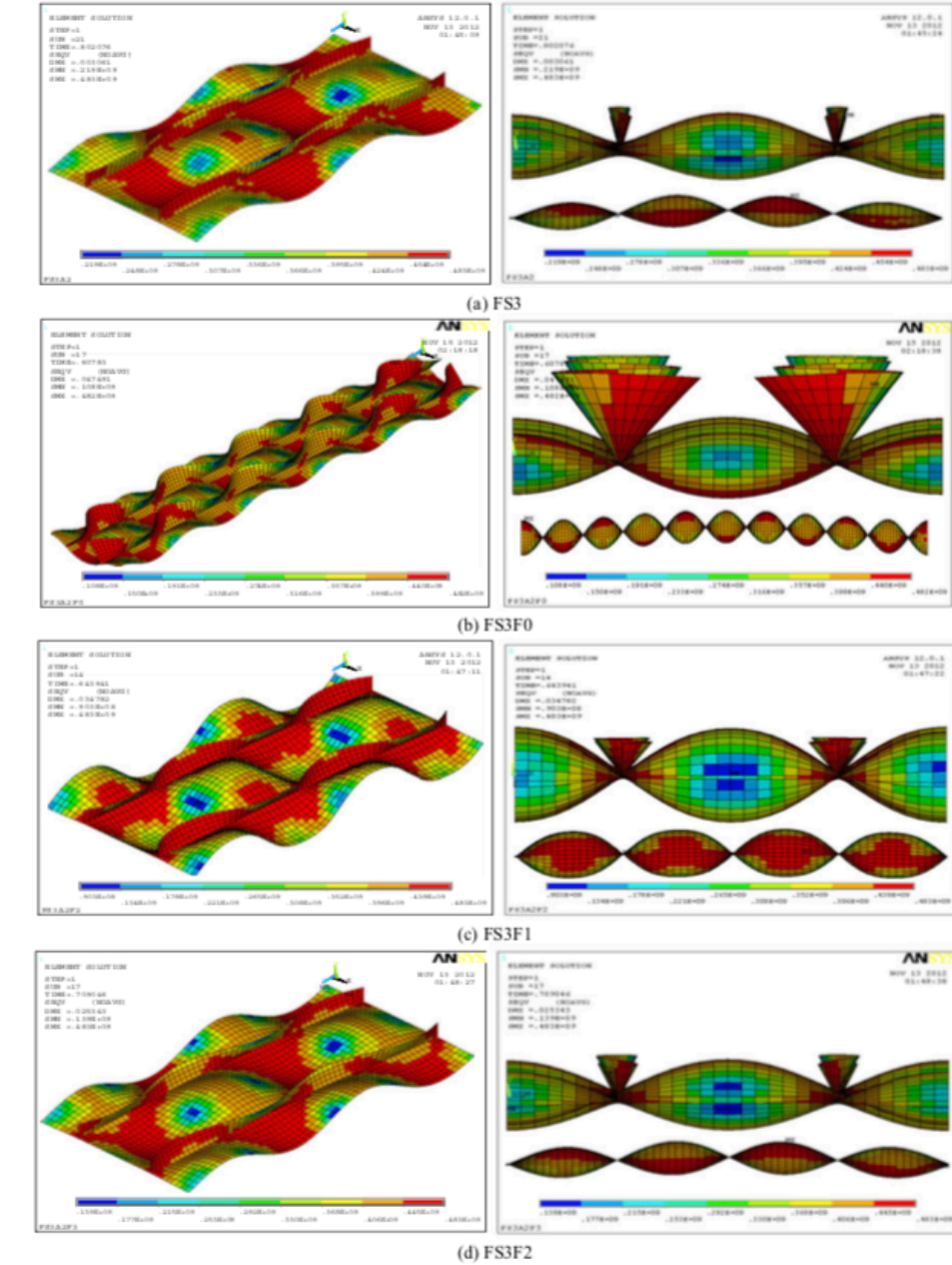


Fig. 12 Failure mode and equivalent stress distributions at the ultimate strength of plate-induced failure mode (Plate buckling collapse mode; Scale factor of deformation: 10)

From: Mingcai Xu, Y. Garbatov and C. Guedes Soares, "Ultimate strength assessment of a tanker hull based on experimentally developed master curves", Journal of Marine Science Applications, Vol. 12, pp 127-139, 2013

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Mingcai Xu obtained his BSc in 2000 and MSc in 2003 at Wuhan University of Technology, and his PhD at the Naval Architecture and Marine Engineering, Instituto Superior Técnico, Technical University of Lisbon, Portugal

Selected Publications:

Xu M.C., Guedes Soares C., 2011. Experimental study on the collapse strength of narrow stiffened panel, Proc 30th Int. Conf. on Offshore Mechanics and Arctic Engineering, (OMAE 2011); ASME paper OMAE2011-50293.

Xu, M. and Soares, C.G., 'Numerical study of the effect of geometry and boundary conditions on the collapse behaviour of short stiffened panels', in: Guedes Soares, C. and Fricke, W. (Editors), *Advances in Marine Structures*, Taylor & Francis Group, London, UK, pp 229-237, 2011.

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Xu, M. and Soares, C.G., 'Numerical assessment of experiments on the ultimate strength of stiffened panels', *Engineering Structures*, Volume 45, pp 460-471, 2012.

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Ming Cai Xu and C. Guedes Soares, "Comparisons of calculations with experiments on the ultimate strength of wide stiffened panels", *Marine Structures*, Vol. 31, pp 82-101, April 2013

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Ming Cai Xu, Zhao Jun Song, Jin Pan and Carlos Guedes Soares, "Ultimate strength assessment of continuous stiffened panels under combined longitudinal compressive load and lateral pressure", *Ocean Engineering*, Vol. 139, pp 39-53, July 2017

Ming Cai Xu, Zhao Jun Song and Jin Pan, "Study on influence of nonlinear finite element method models on ultimate bending moment for hull girder", *Thin-Walled Structures*, Vol. 119, pp 282-295, October 2017

Ming Cai Xu, Zhao Jun Song, Jin Pan and C. Guedes Soares, "Study on the influence of the initial deflection and load combination on the collapse behaviour of continuous stiffened panels", *International Journal of Steel Structures*, Vol. 17, No. 4, pp 1427-1442, December 2017

Ming Cai Xu, Zhao Jun Song, Bo Wen Zhang and Jin Pan, "Empirical formula for predicting ultimate strength of stiffened panel of ship structure under combined longitudinal compression and lateral loads", *Ocean Engineering*, Vol. 162, pp 161-175, 15 August 2018

Zhao Jun Song, Ming Cai Xu, Torgeir Moan and Jin Pan, "Dimensional and similitude analysis of stiffened panels under longitudinal compression considering buckling behaviours", *Ocean Engineering*, Vol. 187, Article 106188, 1 September 2019