

Professor Giulio Alfano

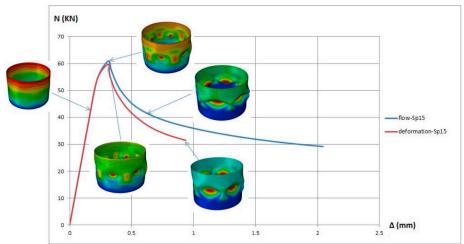


Figure 4.4: Axial load vs. prescribed displacement numerically predicted for specimen 15 for flow and deformation theory with an amplitude of initial imperfection equal to 10% of the thickness.

From: Rabee Shamass, Giulio Alfano and Federico Guarracino, "A numerical investigation into the plastic buckling paradox for circular cylindrical shells under axial compression", Engineering Structures, Vol. 75, pp 429-447, 15 September 2014

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Ph.D. in Structural Engineering, University of Naples 'Federico II', September 1997. 5-year degree in Civil Engineering (summa cum laude), University of Naples 'Federico II', Italy, 1993.

Selected Publications:

Alfano, G., Marotti de Sciarra, F., Rosati, L. (1996), Automatic analysis of multicell thin-walled sections, Computers & Structures, V. 59, N. 4, pp. 641-655.

Alfano G., Auricchio F., Rosati L., Sacco E., MITC finite elements for laminated composite plates, Int. Journal for Numerical Methods in Engineering 50, 2001, 707–738

Alfano, G and Crisfield, M.A., "Finite Element Interface Models for the Delamination Analysis of Laminated Composites: Mechanical and Computational Issues." International Journal for Numerical Method in Engineering, London, U.K, 2001, Vol. 50, pp. 1701-1736

Y. Qiu, M. A. Crisfield and G. Alfano, "An interface element formulation for the simulation of delamination with buckling", Engineering Fracture Mechanics, Vol. 68, No. 16, November 2001, pp. 1755-1776

Alfano G, Crisfield MA (2003) Solution strategies for the delamination analysis based on a combination of local-control arc-length and line searches. Int J Numer Methods Eng 58:999–1048

Rabee Shamass, Giulio Alfano and Federico Guarracino, "A numerical investigation into the plastic buckling paradox for circular cylindrical shells under axial compression", Engineering Structures, Vol. 75, pp 429-447, 15 September 2014

Rabee Shamass, Giulio Alfano and Federico Guarracino, "An investigation into the plastic buckling paradox for circular cylindrical shells under non-proportional loading", Thin-Walled Structures, Vol. 95, pp 347-362,

October 2015

M.T. Rahmati, H. Bahai and G. Alfano, "An accurate and computationally efficient small-scale nonlinear FEA of flexible risers", Ocean Engineering, Vol. 121, pp 382-391, July 2016

Rabee Shamass, Giulio Alfano and Federico Guarracino, "On elastoplastic buckling analysis of cylinders under nonproportional loading by differential quadrature method", International Journal of structural stability and dynamics, September 2016