

Energy Methods in Structural Mechanics

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Federico Guarracino & Alastair Walker, Energy Methods in Structural Mechanics: A comprehensive introduction to matrix and finite element methods of analysis, Thomas Telford, 1999, 423 pages

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Selected Publications:

Book:

Federico Guarracino & Alastair Walker, Energy Methods in Structural Mechanics: A comprehensive introduction to matrix and finite element methods of analysis, Thomas Telford, 1999, 423 pages

Journal Articles:

Guarracino F (2001) The elastic-plastic behaviour of cylindrical tubes under bending: finite elements analyses, experimental data and theoretical consideration. In: Zaras J, Kowal-Michalska K, Rhodes J (eds) Proceedings of

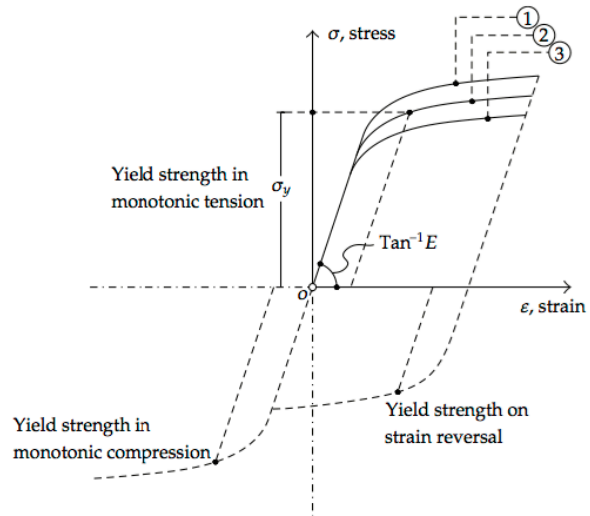


Figure 5: Stress-strain curves for the material regions (1) through (3).

From: Massimiliano Fraldi and Federico Guarracino, "An analytical approach to the analysis of inhomogeneous pipes under external pressure", Journal of Applied Mathematics, Vol. 2012, Article ID 134896, 2012

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M. Fraldi, R. Freeman, S. Slater, A. C. Walker, and F. Guarracino, “An improved formulation for the assessment of the capacity load of circular rings and cylindrical shells under external pressure. Part 2. A comparative study with design codes prescriptions, experimental results and numerical simulations,” *Thin-Walled Structures*, vol. 49, no. 9, pp. 1062–1070, 2011.

F. Guarracino, M. Fraldi, S. Slater, and R. Freeman, “Hydrostatic collapse of deepwater pipelines: a rigorous analytical approach,” in *Proceedings of the Offshore Technology Conference*, Houston, Tex, USA, May 2011.

Massimiliano Fraldi and Federico Guarracino, “An analytical approach to the analysis of inhomogeneous pipes under external pressure”, *Journal of Applied Mathematics*, Vol. 2012, Article ID 134896, 2012

Rabee Shamass (1), Giulio Alfano (1) 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

Massimiliano Fraldi and Federico Guarracino, “Stability analysis of circular beams with mixed-mode imperfections under uniform lateral pressure”, *Advances in Mechanical Engineering*, Vol. 6, August 2015, DOI: 10.1155/2014/294507

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, DOI: 10.1016/j.tws.2015.07.020

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, DOI: 10.1142/S0219455417500729