

Figure 1 Frequency distribution of the lowest limit load found λ_{lim} .

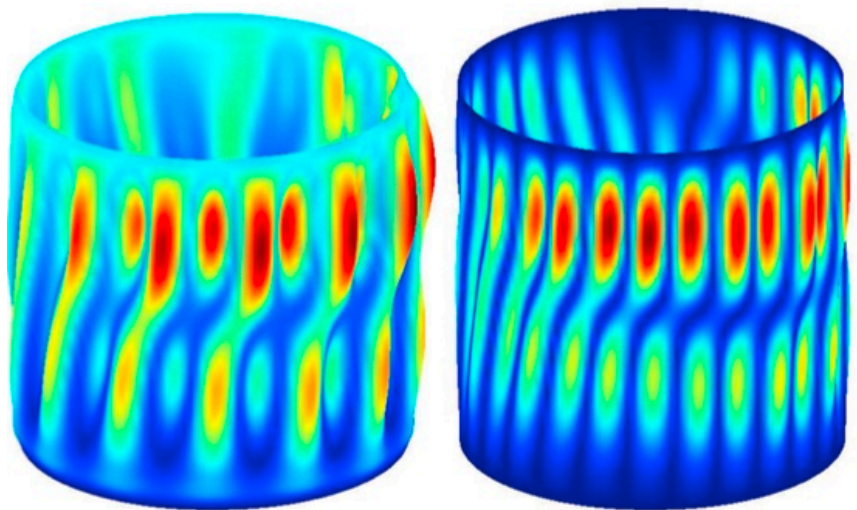
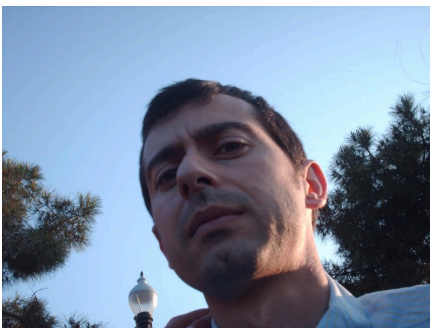


Figure 2 Deformed shape at limit load (left) and worst imperfection (right).

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See:

<https://scholar.google.com/citations?user=oQgOLwsAAAAJ&hl=en>

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Selected Publications:

- Giovanni Garcea, Antonio Madeo, Giuseppe Zagari, and Raffaele Casciaro, “Asymptotic post-buckling FEM analysis using corotational formulation”, *International Journal of Solids and Structures*, Vol. 46, No. 2, January 2009, pp. 377-397, doi:10.1016/j.ijsolstr.2008.08.038
- Giovanni Garcea, Antonio Madeo, Giuseppe Zagari, Emira Lanari, “Implicit Corotational Method: FEM implementation”, *ECSM 2009*, Lisbon, Portugal
- G. Garcea, A. Madeo, and G. Zagari, “Geometrically Exact Beam and Plate Models: The Implicit Corotational Method”, *7th EUROMECH Solid Mechanics Conference J. Ambrosio et.al. (eds.)* Lisbon, Portugal, 7–11 September 2009
- Raffaele Casciaro, Stefano de Miranda, Antonio Madeo, Francesco Ubertini and Giuseppe Zagari, “Implicit Corotational Method: analysis of slender panels assemblages”, (no publisher or date given. Most recent reference is dated 2009)
- Giovanni Garcea, Antonio Bilotta, Antonio Madeo, Giuseppe Zagari and Raffaele Casciaro, “A numerical asymptotic formulation for the post-buckling analysis of structures in case of coupled instability” (publisher and date not given)
- A. Madeo, G. Zagari and R. Casciaro, “An isostatic quadrilateral membrane finite element with drilling rotations and no spurious modes”, *Finite Elements in Analysis and Design*, Vol. 50, pp 21-32, 2012
- Zagari, G., Madeo, A., Casciaro, R., de Miranda, S., Ubertini, F., Koiter analysis of folded structures using a corotational approach, *Int. J. of Solids and Structures*, 50, 5, pp. 755–765, 2013.
- Madeo A, Zagari G, Casciaro R, de Miranda S. A mixed 4-node 3D plate element based on self-equilibrated isostatic stresses. accepted for publication *Int J Struct Stab Dyn*, 2013.
- E. J. Barbero, A. Madeo, G. Zagari, R. Zinno and G. Zucco, “A mixed isostatic 24 dof element for static and buckling analysis of laminated folded plates”, *Composite Structures*, Vol. 116, 223-234, 2014, The final publication is available at <http://dx.doi.org/10.1016/j.compstruct.2014.05.003>
- Barbero E.J., Madeo A., Zagari G., Zinno R., Zucco G. (2014), Koiter asymptotic analysis of folded laminated composite plates, *Composites Part B: Engineering*, Vol.61, 267-274.
- E. J. Barbero, A. Madeo, G. Zagari, R. Zinno and G. Zucco, “Asymptotic post-buckling FEM analysis of laminated composite folded plates”, *ECCM-16th European Conference On Composite Materials*, Seville, Spain, 22-26 June 2014.
- E.J. Barbero, A. Madeo, G. Zagari, R. Zinno and G. Zucco, “Imperfection sensitivity analysis of laminated folded plates”, *Thin-Walled Structures*, Vol. 90, pp 128-139, May 2015, DOI: [10.1016/j.tws.2015.01.017](https://doi.org/10.1016/j.tws.2015.01.017)
- A. Madeo, R.M.J. Groh, G. Zucco, P.M. Weaver, G. Zagari and R. Zinno, “Post-buckling analysis of variable-angle tow composite plates using Koiter’s approach and the finite element method”, *Thin-Walled Structures*, Vol. 110, pp 1-13, January 2017, DOI: [10.1016/j.tws.2016.10.012](https://doi.org/10.1016/j.tws.2016.10.012)
- E. J. Barbero, A. Madeo, G. Zagari, R. Zinno, G. Zucco, “Imperfection sensitivity analysis of composite cylindrical shells using Koiter’s method”, *International Journal for Computational methods in Engineering Science and Mechanics*, Vol. 18, No. 1, pp 105-111, January 2017, <http://dx.doi.org/10.1080/15502287.2016.1276359>