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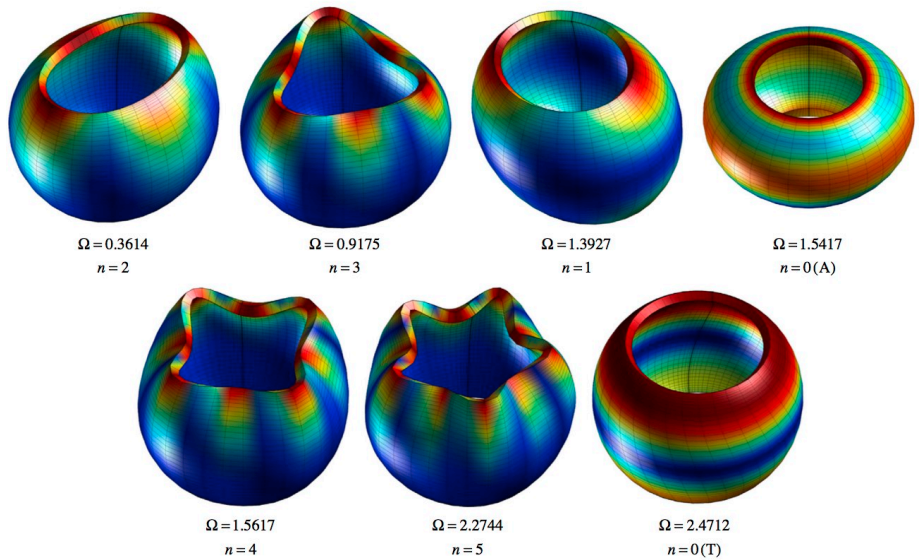


Fig. 5. First mode shape for each value of n of a FF barrel shell with linearly variable thickness.

From: Michele Baccocchi, Moshe Eisenberger, Nicholas Fantuzzi, Francesco Tornabene and Erasmo Viola, “Vibration analysis of variable thickness plates and shells by the Generalized Differential Quadrature method”, *Composite Structures*, Vol. 156, pp 218-237, November 2016

See:

- https://www.researchgate.net/profile/Michele_Baccocchi
- <https://www.unibo.it/sitoweb/michele.baccocchi/publications>
- <https://scholar.google.com/citations?user=VjjsN0cAAAAJ&hl=it>

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Research Interests:

Structural mechanics, Theory of plates and shells, Computational mechanics, Generalized differential quadrature

Selected Publications:

Tornabene, F., Fantuzzi, N., Baccocchi, M. (2014). Free vibrations of free-form doubly-curved shells made of functionally graded materials using higher-order equivalent single layer theories, *Composite Part B Engineering*, 67:490-509

Francesco Tornabene, Nicholas Fantuzzi and Michele Baccocchi, “Free vibrations of free-form doubly-curved shells made of functionally graded materials using higher-order equivalent single layer theories”, *Composites Part B: Engineering*, Vol. 67, pp 490-509, December 2014

Francesco Tornabene, Nicholas Fantuzzi, Michele Baccocchi, The local GDQ method applied to general higher-order theories of doubly-curved laminated composite shells and panels: The free vibration analysis, *Composite Structures*, 116 (2014), 637-660.

Francesco Tornabene, Nicholas Fantuzzi, Michele Baccocchi and Erasmo Viola, “Accurate inter-laminar recovery for plates and doubly-curved shells with variable radii of curvature using layer-wise theories”, *Composite Structures*, Vol. 124, pp 368-393, June 2015

Nicholas Fantuzzi, Michele Bacciocchi, Francesco Tornabene, Erasmo Viola and Antonio J.M. Ferreira, "Radial basis functions based on differential quadrature method for the free vibration analysis of laminated composite arbitrarily shaped plates", *Composites Part B: Engineering*, Vol. 78, pp 65-78, September 2015

Francesco Tornabene, Nicholas Fantuzzi, Michele Bacciocchi and Erasmo Viola, "Higher-order theories for the free vibrations of doubly-curved laminated panels with curvilinear reinforcing fibers by means of a local version of the GDQ method", *Composites Part B: Engineering*, Vol. 81, pp 196-230, November 2015

Francesco Tornabene, Nicholas Fantuzzi, Michele Bacciocchi and Erasmo Viola, "A new approach for treating concentrated loads in doubly-curved composite deep shells with variable radii of curvature", *Composite Structures*, Vol. 131, pp 433-452, November 2015

Francesco Tornabene, Nicholas Fantuzzi, Michele Bacciocchi and Rossana Dimitri, "Free vibrations of composite oval and elliptic cylinders by the generalized differential quadrature method", *Thin-Walled Structures*, Vol. 97, pp 114-129, December 2015

Francesco Tornabene, Nicholas Fantuzzi, Michele Bacciocchi and Rossana Dimitri, "Dynamic analysis of thick and thin elliptic shell structures made of laminated composite materials", *Composite Structures*, Vol. 133, pp 278-299, December 2015

Francesco Tornabene, Nicholas Fantuzzi, Michele Bacciocchi and Erasmo Viola, "Effect of agglomeration on the natural frequencies of functionally graded carbon nanotube-reinforced laminated composite doubly-curved shells", *Composites Part B: Engineering*, Vol. 89, pp 187-218, March 2016

Francesco Tornabene, Nicholas Fantuzzi and Michele Bacciocchi, "Higher-order structural theories for the static analysis of doubly-curved laminated composite panels reinforced by curvilinear fibers", *Thin-Walled Structures*, Vol. 102, pp 222-245, May 2016

Francesco Tornabene, Nicholas Fantuzzi and Michele Bacciocchi, "The local GDQ method for the natural frequencies of doubly-curved shells with variable thickness: A general formulation", *Composites Part B: Engineering*, Vol. 92, pp 265-289, May 2016

Francesco Tornabene, Nicholas Fantuzzi, Michele Bacciocchi, Ana M.A. Neves and Antonio J.M. Ferreira, "MLSDQ based on RBFs for the free vibrations of laminated composite doubly-curved shells", *Composites Part B: Engineering*, Vol. 99, pp 30-47, August 2016

F. Tornabene, N. Fantuzzi, M. Bacciocchi, Linear static response of nanocomposite plates and shells reinforced by agglomerated carbon nanotubes, *Compos Part B Eng* (2016)

Francesco Tornabene, Nicholas Fantuzzi and Michele Bacciocchi, "The GDQ method for the free vibration analysis of arbitrarily shaped laminated composite shells using a NURBS-based isogeometric approach", *Composite Structures*, Vol. 154, pp 190-218, October 2016

Michele Bacciocchi, Moshe Eisenberger, Nicholas Fantuzzi, Francesco Tornabene and Erasmo Viola, "Vibration analysis of variable thickness plates and shells by the Generalized Differential Quadrature method", *Composite Structures*, Vol. 156, pp 218-237, November 2016

Francesco Tornabene, Nicholas Fantuzzi and Michele Bacciocchi, "On the mechanics of laminated doubly-curved shells subjected to point and line loads", *International Journal of Engineering Science*, Vol. 109, pp 115-164, December 2016

S. Brischetto, F. Tornabene, N. Fantuzzi and M. Bacciocchi, "Interpretation of boundary conditions in the analytical and numerical shell solutions for mode analysis of multilayered structures", *International Journal of Mechanical Sciences*, Vol. 122, pp 18-28, March 2017

Nicholas Fantuzzi, Francesco Tornabene, Michele Bacciocchi and Rossana Dimitri, "Free vibration analysis of arbitrarily shaped functionally graded carbon nanotube-reinforced plates", *Composites Part B: Engineering*, Vol. 115, pp 384-408, April 2017

Francesco Tornabene, Nicholas Fantuzzi and Michele Baccocchi, "A new doubly-curved shell element for the free vibration of arbitrarily shaped laminated structures based on Weak Formulation IsoGeometric Analysis", *Composite Structures*, Vol. 171, pp 429-461, July 2017

Francesco Tornabene, Nicholas Fantuzzi, Michele Baccocchi and J.N. Reddy, "A posteriori stress and strain recovery procedure for the static analysis of laminated shells resting on nonlinear elastic foundation", *Composites Part B: Engineering*, Vol. 126, pp 162-191, October 2017