



Professor Marco di Sciuva

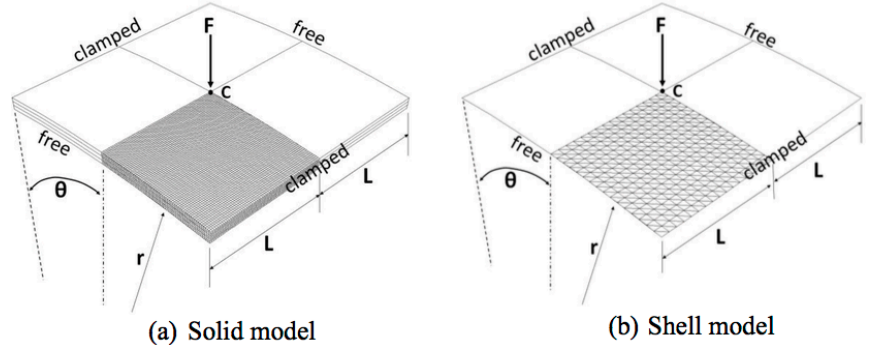


Figure 4. Finite element discretization for cylindrical shell.

From: Tessler, A, Gherlone, M., Versino D. and Di Sciuva, M., “Analytic and computational perspectives of multi-scale theory for homogeneous, laminated composite and sandwich beams and plates”, NASA Technical Report, NASA/TP-2012-217573; L-20141; NF1676L-14627, 2012 (See also possibly AIAA/SDM Conference, 2012)

See:

http://www.omicsgroup.org/editor-biography/Marco_Di_Sciuva/

https://www.researchgate.net/profile/Marco_Di_Sciuva

Department of Mechanical and Aerospace Engineering
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Biography:

Dr. Marco Di Sciuva is full Professor of Aerospace Structures at the Department of Mechanical and Aerospace Engineering of Politecnico di Torino (Italy) since 1999. He obtained his Master of Science in Aerospace Engineering at the Politecnico di Torino in 1974. Director of the Department of Aerospace Engineering of the Politecnico di Torino from 1999 to 2007 and Chairman of the Master of Science in Aerospace Engineering from 2008 to 2012 of the Politecnico di Torino. Visiting Researcher at NIA-National Institute of Aerospace-Langley, Virginia, USA in 2012. Member of the Scientific Committee of the PhD Course in Aerospace Engineering at Politecnico di Torino. Member of the Accademia delle Scienze di Torino and of the Editorial Board of the International Journal of Sandwich Structures and Materials. Author of over 150 scientific articles published in international journals, international conferences, etc. (about 1200 citations). Reviewer for International Journals and Organizer of Symposia and Session Chairman for International Conferences.

Research Interests:

Dr. Marco Di Sciuva's research interests cover aspects of analytical, numerical and experimental methods of aircraft structures, ranging from the dynamics (modal analysis and impact responses) of continuous systems to the modeling of multilayer and sandwich structures with analytical (mainly, zigzag approaches) and finite element methods, buckling and post-buckling of thin-walled structures, SHM techniques and identification.

Selected Publications:

M. Di Sciuva. A refined transverse shear deformation theory for multilayered anisotropic plates. *Atti. Accademia Scienze Torino*, 118:279–295, 1984.

M. DiSciuva. Development of anisotropic multilayered shear deformable rectangular plate element. *Computers and Structures*, 21:789–796, 1985.

Di Sciuva, M. (1986) Bending, vibration, and buckling of simply supported thick multilayered orthotropic plates: An evaluation of a new displacement model, *Journal of Sound and Vibration*, 105, 425–42.

Di Sciuva, M., "Evaluation of Some Multilayered, Shear-Deformable Plate Elements," *Computers and Structures*, Vol. 24, No. 6, 1986, pp. 845-854.

M. Di Sciuva, An improved shear-deformation theory for moderately thick multilayered anisotropic shells and plates, *J. Appl. Mech* 54 (1987), pp. 589–596.

Di Sciuva M, Carrera E. Static buckling of moderately thick, anisotropic, laminated and sandwich cylindrical shell panels. *Journal of American Institute of Aeronautics and Astronautics* 1990;28(10):1782–93.

M. Di Sciuva. Multilayered anisotropic plate models with continuous interlaminar stress. *Comput. Struct*, 22(3):149167, 1992.

M. DiSciuva. A general quadrilateral multilayered plate element with continuous interlaminar stresses. *Computers and Structures*, 47:91–105, 1993.

M. D. Sciuva, A third-order triangular multilayered plate finite element with continuous interlaminar stresses, *Int. J. Num. Meth. Eng.* 38 (1995) 1–26.

Di Sciuva M, Icardi U (1995) Analysis of thick multilayered anisotropic plates by a higher-order plate element. *AIAA J* 33(12):2435–2437

Di Sciuva M, Icardi U. A geometrically nonlinear theory of composite plates with induced-strain actuators. *Proceedings of XIII AIDAA Congress, Rome, Italy, 1995*; 309-318.

M. DiSciuva. C0 reissner-mindlin multilayered plate element including zigzag and interlaminar stress continuity. *Journal of Numerical Methods in Engineering*, 39:1797–1820, 1996.

M. Di Sciuva, U. Icardi and L. Librescu, "On modeling of laminated composite structures featuring interlaminar imperfections", *Studies in Applied Mechanics*, Vol. 45, 1997, pp. 395-404, Special Issue: *Advanced Methods in Materials Processing Defects*, doi:10.1016/S0922-5382(97)80041-4

T. E. Tay, F. Shen, K. H. Lee, A. Scaglione and M. Di Sciuva, "Mesh design in finite element analysis of post-buckled delamination in composite laminates", *Composite Structures*, Vol. 47, Nos. 1-4, December 1999, pp. 603-611, Special Issue: *Tenth International Conference on Composite Structures*

Tessler, A, Gherlone, M., Versino D. and Di Sciuva, M., "Analytic and computational perspectives of multi-scale theory for homogeneous, laminated composite and sandwich beams and plates", *NASA Technical Report*, NASA/TP-2012-217573; L-20141; NF1676L-14627, 2012

L. Iurlaro, M. Gherlone, M. Di Sciuva and A. Tessler, "Assessment of the refined zigzag theory for bending, vibration, and buckling of sandwich plates: a comparative study of different theories", *Composite Structures*, Vol. 106, pp. 777-792, 2013