



Professor J. L. Mantari

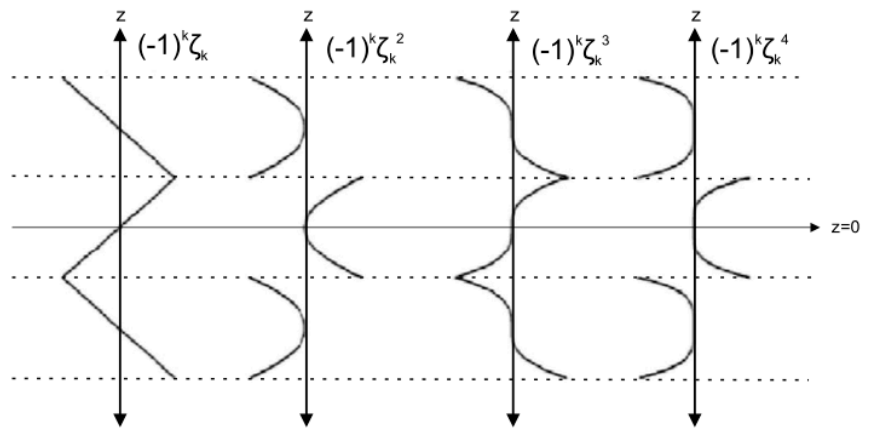


Fig. 2. Higher order zig-zag functions.

From: Jorge Yarasca and J.L. Mantari, "N-objective genetic algorithm to obtain accurate equivalent single layer models with layerwise capabilities for challenging sandwich plates", *Aerospace Science and Technology*, Vol. 70, pp 170-188, July 2017

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Education and Research Interests (from <https://pe.linkedin.com/in/jl-mantari-phd-702a0159>) :

After graduated from the faculty of Mechanical Engineering of the National University of Engineering (Peru), JL Mantari received his master (excellence) and PhD (pass with distinction) in Naval Architecture and Marine Engineering at Technical University of Lisbon (Portugal). The research topic of JL Mantari during his PhD was behavior of classical and advanced composite structures. Therefore, his work can suit perfectly to different fields such as marine engineering, aerospace engineering, mechanical engineering, nanotechnology, material science engineering, civil engineering, and applied mathematics. His main research topics are: composite materials, finite elements, plates and shells, smart structures, thermal stress, and ship stability. He is author of more than 30 papers on these topics, many of which have been published in international acclaimed journals.

Selected Publications:

Mantari, J.L., Oktem, A.S., Soares, C.G.: Static and dynamic analysis of laminated composite and sandwich plates and shells by using a new higher-order shear deformation theory. *Compos. Struct.* 94, 37–49 (2011)

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Mantari, J.L., Oktem, A.S. and Soares, C.G. (2012), "A new trigonometric layerwise shear deformation theory for the finite element analysis of composite and sandwich plates", *Comput. Struct.*, 94-95, 43-53.

Oktem, A.S., Mantari, J.L., Soares, C.G.: Static response of functionally graded plates and doubly-curved shells based on a higher order shear deformation theory. *Eur. J. Mech. A Solids* 36, 163–172 (2012)

Mantari, J.L., Oktem, A.S. and Soares, C.G. (2012), "Bending response of functionally graded plates by using a new higher order shear deformation theory", *Compos. Struct.*, 94(2), 714-723.

Mantari JL, Oktem AS, Soares CG. A new higher order shear deformation theory for sandwich and composite laminated plates. *Compos Part B Eng* 2012;43(3):1489–1499.

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Mantari, J.L. and Guedes Soares, C.G. (2012), "Generalized hybrid quasi-3D shear deformation theory for the static analysis of advanced composite plates", *Compos. Struct.*, 94(8), 2561-2575

Mantari, J. L. and Guedes Soares, C.: Analysis of Isotropic and Multilayered Plates and Shells by Using a Generalized Higher-Order Shear Deformation Theory. *Composite Structures*, vol. 94, 2012, pp. 2640-2656.

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Mantari JL, Soares CG. A novel higher-order shear deformation theory with stretching effect for functionally graded plates. *Compos Part B Eng* 2013;45(1):268–281.

J.L. Mantari and C. Guedes Soares, "Generalized layerwise HSDT and finite element formulation for symmetric laminated and sandwich composite plates", *Composite Structures*, Vol. 105, pp 319-331, November 2013

Mantari, J.L. and Soares, C.G. (2014), "Optimized sinusoidal higher order shear deformation theory for the analysis of functionally graded plates and shells", *Compos. B Eng.*, 56(1), 126-136.

Mantari, J.L. and Guedes Soares, C. (2014), "A trigonometric plate theory with 5-unknowns and stretching effect for advanced composite plates", *Compos. Struct.*, 107, 396-405.

J.L. Mantari, E.V. Granados and C. Guedes Soares, "Vibrational analysis of advanced composite plates resting on elastic foundation", *Composites Part B: Engineering*, Vol. 66, pp 407-419, November 2014

J. Mantari, E. Granados, M. Hinostroza, C.G. Soares Modelling advanced composite plates resting on elastic foundation by using a quasi-3D hybrid type HSDT, *Compos. Struct.*, 118 (2014), pp. 455-471

Mantari, J.L. and Granados, E.V. (2015), "Dynamic analysis of functionally graded plates using a novel FSDT", *Compos. Part B- Eng.*, 75, 148 -155

J.L. Mantari and C. Guedes Soares, "A quasi-3D tangential shear deformation theory with four unknowns for functionally graded plates", *Acta Mechanica*, Vol. 226, No. 3, pp 625-642, 2015

J.L. Mantari, "Refined and generalized hybrid type quasi-D3 shear deformation theory for the bending analysis of functionally graded shells", *Composites Part B: Engineering*, Vol. 83, pp 142-143, December 2015

J.L. Mantari, I.A. Ramos, E. Carrera and M. Petrolo, "Static analysis of functionally graded plates using new non-polynomial displacement fields via Carrera Unified Formulation", *Composites Part B: Engineering*, Vol. 89, pp 127-142, March 2016

Canales, F.G., Mantari, J.L.: Buckling and free vibration of laminated beams with arbitrary boundary conditions using a refined HSDT. *Compos. B: Eng.* 100, 136–145 (2016)

J. L. Mantari and J. C. Monge, "Buckling, free vibration and bending analysis of functionally graded sandwich plates based on an optimized hyperbolic unified formulation," *Int. J. Mech. Sci.*, vol. 119, pp. 170–186, 2016

J.L. Mantari, "Computational development of a 4-unknowns trigonometric quasi-3D shear deformation theory to study advanced sandwich plates and shells", *International Journal of Applied Mechanics*, Vol. 8, No. 4, 1650049, June 2016

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F.G. Canales and J.L. Mantari, "Laminated composite plates in contact with a bounded fluid: Free vibration analysis via unified formulation", *Composite Structures*, Vol. 162, pp 374-387, November 2016

J. Yarasca, J.L. Mantari, M. Petrolo and E. Carrera, "Best theory diagrams for cross-ply composite plates using polynomial, trigonometric and exponential thickness expansions", *Composite Structures*, Vol. 161, pp 362-383, February 2017

Jorge Yarasca, J.L. Mantari, Marco Petrolo and E. Carrera, "Multiobjective best theory diagrams for cross-ply composite plates employing polynomial, zig-zag, trigonometric and exponential thickness expansions", *Composite Structures*, Vol. 176, pp 860-876, June 2017

Jorge Yarasca and J.L. Mantari, "N-objective genetic algorithm to obtain accurate equivalent single layer models with layerwise capabilities for challenging sandwich plates", *Aerospace Science and Technology*, Vol. 70, pp 170-188, July 2017

S. Candiotti, J.L. Mantari, J. Yarasca, M. Petrolo and E. Carrera, "An axiomatic/asymptotic evaluation of best theories for isotropic metallic and functionally graded plates employing non-polynomic functions", *Aerospace Science and Technology*, Vol. 68, pp 179-192, September 2017

Luan C. Trinh, Thuc P. Vo, Huu-Tai Thai and J.L. Mantari, "Size-dependent behaviour of functionally graded sandwich microplates under mechanical and thermal loads", *Composites Part B: Engineering*, Vol. 124, pp 218-241, September 2017

J.C. Monge, J.L. Mantari, S. Charca and N. Vladimir, "An axiomatic/asymptotic evaluation of the best theories for free vibration of laminated and sandwich shells using non-polynomial functions", *Engineering Structures*, Vol. 172, pp 1011-1024, 1 October 2018