



Professor Marcelo Greco

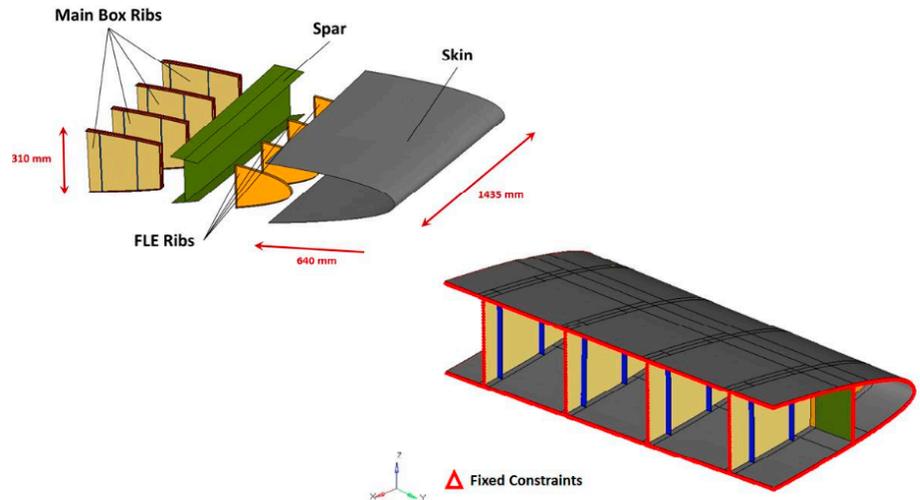


Figure 1: Wing Fixed Leading Edge FEM

From: Tomaz P. Drumond, Marcelo Greco, Carlos A. Cimini Jr. and Eduardo B. Medeiros, “Evaluation of alternative materials in a wing fixed leading edge to support UAS impact”, IBERO-Latin American Congress on Computational Methods in Engineering (XL CILAMCE), 11-14 November 2019

See:

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Summary:

Associate Professor at the Federal University of Minas Gerais, working in Aerospace and Mechanical Engineering courses, teaching Strength of Materials and Structural Analysis. Is the responsible for the creation of the Didactic Laboratory of Solid Mechanics and currently is its coordinator. Since 2007 acts as reviewer of 20 international journals, with 50 scientific papers having been reviewed. Ph.D. in Structural Engineering at the University of São Paulo (2004).

Selected Publications:

M. Greco, Nonlinear structural contact/impact analysis problems using the finite element method, Universidade de São Paulo, 2004.

H.B. Coda and M. Greco. A simple FEM formulation for large deflection 2D frame analysis based on position description. *Comput. Methods Appl. Mech. Engrg.*, 193: 3541-3557, 2004

M. Greco, F.A.R. Gesualdo, W.S. Venturini, and H.B. Coda. Inelastic post-buckling analysis of truss structures by dynamic relaxation method. *Finite Elements in Analysis and Design*, 42(12):1079–1086, 2006

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M. Greco and H. B. Coda, “Positional FEM formulation for flexible multi-body dynamic analysis,” *Journal of Sound and Vibration*, vol. 290, no. 3, pp. 1141–1174, 2006

Paulo Gustavo von Krueger, Francisco Carlos Rodrigues, Luis Eustaquio Moreira, Edgar Vladimiro Mantilla Carrasco and Marcelo Greco, “Mechanical behavior of a tensegrity dome”, *Mechanics Research Communications*, Vol. 35, pp 460-465, 2008

M. Greco, R. C. G. Menin, I. P. Ferreira, and F. B. Barros, “Comparison between two geometrical nonlinear methods for truss analyses,” *Structural Engineering and Mechanics*, vol. 41, no. 6, pp. 735–750, 2012.

Debora Francisco Lalo and Marcelo Greco, “Evolutionary structural optimization applied for problems with nonlinear behavior”, 23rd ABCM International Congress of Mechanical Engineering, December 6-11, Rio de Janeiro, Brazil, 2015

Flavio Marcilio de Oliveira and Marcelo Greco, "Nonlinear dynamic analysis of beams with layered cross sections under moving masses", *Journal of the Brazilian Society of Mech. Sci. Eng.*, Vol. 37, pp 451-462, 2015

Walliston S. Fernandes, Valerio S. Almeida, Francisco A. Neves and Marcelo Greco, "Topology optimization applied to 2D elasticity problems considering the geometrical nonlinearity", *Engineering Structures*, Vol. 100, pp 116-127, October 2015

Daniel Nelson Maciel, João Paulo De Barros Cavalcante, Marcelo Greco and José Neres Da Silva Filho, "A simple FEM formulation applied to nonlinear problems of impact with thermomechanical coupling", *Latin American Journal of Solids and Structures*, Vol. 14, No. 13, pp 2439-2462, 2017

William Luiz Fernandes, Daniel Boy Vasconcellos and Marcelo Greco, "Dynamic Instability in Shallow Arches under Transversal Forces and Plane Frames with Semirigid Connections", *Mathematical Problems in Engineering*, Volume 2018, Article ID 1985907, 14 pages

J. M. G. Rabelo, J. S. Becho, M. Greco, and C. A. Cimini Jr, "Modeling the creep behavior of GFRP truss structures with positional FEM," *Latin American Journal of Solids and Structures*, vol. 15, p. e17, 2018.

Debora Francisco Lalo, Mateus Oliveira Silva and Marcelo Greco, "Influence of damping ratio on a structural optimization design considering a dynamic analysis within the time domain", *Acta Scientiarum, Technology*, Vol. 40, e30593, 2018

Tomaz P. Drumond, Marcelo Greco, Carlos A. Cimini Jr. and Eduardo B. Medeiros, "Evaluation of alternative materials in a wing fixed leading edge to support UAS impact", *IBERO-Latin American Congress on Computational Methods in Engineering (XL CILAMCE)*, 11-14 November 2019