



MARIE SKŁODOWSKA-CURIE POSTDOCTORAL FELLOWSHIPS 2025 EXPRESSION OF INTEREST FOR HOSTING MARIE CURIE FELLOWS

HOST INSTITUTION

NOVA School of Science & Technology

RESEARCH GROUP AND URL

CERIS (https://ceris.pt/, https://docentes.fct.unl.pt/rodrigo-goncalves/pages/research-0)

SUPERVISOR (NAME AND E-MAIL)

Rodrigo Gonçalves (rodrigo.goncalves@fct.unl.pt)

SHORT CV OF THE SUPERVISOR

Full Professor of Structural Mechanics, Rodrigo Gonçalves possesses over twenty years of research experience in the computational modelling of thin-walled structures and structural stability. He is currently the Coordinator of the PhD Programme in Civil Engineering, the Coordinator of the CERIS research center hub at NOVA FCT and the Portuguese representative in WG3 (EN 1993-1-3 – Cold formed steel members) and WG22 (EN 1993-1-14 - Design assisted by FEM) of CEN. He has received several national and international distinctions and has been in the world top 2% most cited scientists in his field since 2019 (https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw).

5 SELECTED PUBLICATIONS

- Gonçalves, R., Ritto-Corrêa, M., Camotim, D., "A new approach to the calculation of cross-section deformation modes in the framework of Generalized Beam Theory", Computational Mechanics, 46(5), pp. 759-781, 2010.
- Gonçalves, R., Ritto-Corrêa, M., Camotim, D., "A large displacement and finite rotation thin-walled beam formulation including cross-section deformation", Computer Methods in Applied Mechanics and Engineering, 199(23-24), pp. 1627-1643, 2010.
- Gonçalves, R., Camotim, D., "Elastic buckling of uniformly compressed thin-walled regular polygonal tubes", Thin-Walled Structures, 71, pp. 35-45, 2013.
- Manta, D., Gonçalves, R., "A geometrically exact Kirchhoff beam model including torsion warping", Computers and Structures, 177, pp. 192-203, 2016.
- Bebiano, R., Camotim, D., Gonçalves, R., "GBTUL 2.0 a second-generation code for the GBTbased buckling and vibration analysis of thin-walled members", Thin-Walled Structures, 124, pp. 235-253, 2018.

PROJECT TITLE AND SHORT DESCRIPTION

"On the worst geometric imperfections for the design of steel structures". In this project the fellow will establish, rigorously, through engineering design optimization techniques and finite element modelling, the worst geometric imperfection shapes for some classes of steel structures, such as columns, beams, frames, plates and cold-formed members. A comparison with imperfections prescribed by Eurocode 3 will be carried out to assess its safety level.

SCIENTIFIC AREA WHERE THE PROJECT FITS BEST*

Information Science and Engineering (ENG)



