



## MARIE SKŁODOWSKA-CURIE POSTDOCTORAL FELLOWSHIPS 2024

### 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

Rodrigo Gonçalves is a Full Professor of Structural Mechanics with over twenty years of research experience in thin-walled structures and structural stability. He is currently the Coordinator of the PhD Program in Civil Engineering, the Coordinator of the CERIS research center hub at FCT-NOVA and the Portuguese representative in WG3 (EN 1993-1-3 - Coldformed steel members) and WG22 (EN 1993-1-14 - Design assisted by FEM) of CEN. He has received several national and international distinctions and is currently within the world top 2% most cited scientists in his field.

#### 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.
- Bebiani, 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

"Direct Strength design of cold-formed steel members". In this project the fellow will establish direct strength-based methods for the safety checking of cold-formed steel members failing by local and distortional buckling, in both common (e.g., lipped channel) and uncommon section shapes.

#### SCIENTIFIC AREA WHERE THE PROJECT FITS BEST\*

Information Science and Engineering (ENG)