

CURRICULUM VITAE OF MARCELO JOSÉ COLAÇO

CURRENT POSITION: Full Professor (tenured)

H-INDEX: Scopus: 21 (Author ID: 7004070221); GoogleScholar: H-index 29, i10-index 85

EDUCATION:

D.Sc.	Federal University of Rio de Janeiro, Brazil (Mech. Eng.)	08/2001
M.Sc.	Federal University of Rio de Janeiro, Brazil (Mech. Eng.)	03/1998
Engineering Degree	Federal University of Rio de Janeiro, Brazil (Mech. Eng.)	10/1996

AWARDS:

One of the Best Scientists in Rio de Janeiro, Rio de Janeiro State Agency of Sci. Res., Brazil	2009-...
Member of the Scientific Council of the International Centre for Heat and Mass Transfer, Turkey	2012-...

MEMBERSHIPS:

ABCM - Brazilian Society of Mechanical Engineers: Senior Member	1995-...
ASME - American Society of Mechanical Engineers: Member	2001-...
ASTFE – Americal Society of Thermal and Fluids Engineers: Membr	2017-...

BOOKS PUBLISHED:

1. ÖZISIK, M. N. ; ORLANDE, H. R. B. ; COLAÇO, M. J. ; COTTA, R. M. . **Finite Difference Methods in Heat Transfer**. 2. ed. New York: CRC Press, 2017. v. 1. 580p .
2. ORLANDE, H. R. B. ; COLAÇO, M. J. ; COTTA, C. P. N. ; GUIMARAES, G. ; BORGES, V. L. . **Inverse Problems in Heat Transfer (in Portuguese)**. São Carlos: SBMAC, 2011. v. 1. 117p

.SELECTED PAPERS IN REFERRED JOURNALS (LAST 5 YEARS):

1. *Internal Heat Flux Estimation in Tubes Using the Backward Reciprocity Functional Method: Numerical and Experimental Results.* **Heat Transfer Engineering**, v. 1, p. 1-23, 2026.
<https://dx.doi.org/10.1080/01457632.2025.2600858>
2. *A GSVD-based methodology for automatic selection of high-order regularization parameters in inverse heat conduction problems.* **International Communications in Heat and Mass Transfer**, 2025.
<http://dx.doi.org/10.1016/j.icheatmasstransfer.2025.108684>
3. *Estimating thermal contact conductances in two-layer cylindrical composites using the reciprocity functional method and transient measurements.* **Journal of the Brazilian Society of Mechanical Sciences and Engineering**, 2025. <http://dx.doi.org/10.1007/s40430-025-05424-0>
4. *Estimation of Internal Heat Flux on Pulsating Heat Pipes using Kalman Filter: Numerical and Experimental Results.* **Journal of Physics. Conference Series**, v. 2685, p. 012071, 2024. http://dx.doi.org/10.1088/1742-6596/2685/1/012071***
5. *Monitoring internal heat fluxes on Pulsating Heat Pipes using Kalman filter - Numerical and experimental results.* **Applied Thermal Engineering**, 2024.
http://dx.doi.org/10.1016/j.applthermaleng.2024.122801***
6. *Online estimation of inlet contaminant concentration using Eulerian-Lagrangian method of fundamental solutions and Bayesian inference.* **Computers**
<http://dx.doi.org/10.1016/j.camwa.2024.04.019>
7. *An Eulerian-Lagrangian method of fundamental solutions for the advection-diffusion equation with time dependent coefficients.* **Engineering Analysis with Boundary Elements**, 2024.
<http://dx.doi.org/10.1016/j.enganabound.2024.105766>
8. *A computational study on square and helical magnetohydrodynamic generators including applications to a combined power cycle.* **Journal of the Brazilian Society of Mechanical**

- Sciences and Engineering**, 2024. <http://dx.doi.org/10.1007/s40430-024-05150-z>
9. *Nonintrusive thermal contact conductance estimation in double-layered pipelines: A reciprocity functional method perspective.* **Numerical Heat Transfer Part A-Applications**, 2024. <http://dx.doi.org/10.1080/10407782.2024.2364059>
 10. *Parameter estimation with the Markov Chain Monte Carlo method aided by evolutionary neural networks in a water hammer model,* **Computational and Applied Mathematics**, <https://doi.org/10.1007/s40314-022-02162-0>. 2023.
 11. *Inverse problem estimation of internal heat transfer coefficients in ducts through a time-dependent reciprocity functional method,* **Computational and Applied Mathematics**, <http://dx.doi.org/10.1007/s40314-022-02169-7>, 2023. ***
 12. *An Eulerian-Lagrangian integral transform technique for solving advective-diffusive problems,* **International Communications in Heat and Mass Transfer**, <http://dx.doi.org/10.1016/j.icheatmasstransfer.2022.105976>, 2022.
 13. *Numerical analysis of a MHD generator with helical geometry,* **Computational Thermal Sciences**, <http://dx.doi.org/10.1615/computthermalsci.2022042038>, 2022.
 14. *Automatic selection of regularization parameter in inverse heat conduction problems.* **International Communications in Heat and Mass Transfer**, <http://dx.doi.org/10.1016/j.icheatmasstransfer.2022.106403>, 2022.
 15. *Local heat flux estimation inside tubes through conjugate gradient method with adjoining operator: application to the pulsating heat Pipes case.* **International Journal of Numerical Methods for Heat & Fluid Flow**, <http://dx.doi.org/10.1108/HFF-09-2022-0547>, 2022.***
 16. *Computational model of silica nanoparticle penetration into tumor spheroids: effects of methoxy and carboxy PEG surface functionalization and hyperthermia.* **International Journal for Numerical Methods in Biomedical Engineering**, <http://dx.doi.org/10.1002/cnm.3504>, 2021.

*** collaboration with UNIPR.

Autorizzo il trattamento dei miei dati personali contenuti nel mio CV ai sensi del D.Lgs. 196/2003 e del Regolamento UE 2016/679 (GDPR).