

Curriculum Vitæ

(Summula)

**Prof. Dr. Carlos Alberto
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1) Academic Certification/Diploma

- **Mechanical Engineer**, by Mechanical Engineering Department of Federal University of Espírito Santo (Brazil), in 1998.
- **Specialization in Planning Engineering**, by Engineering School of Federal University of Espírito Santo/ PETROBRAS, Brazil, 2007.
- **Master of Science (M.Sc.)**, (Area: Solid Mechanics), by Mechanical Engineering Department of Federal University of Espírito Santo (PPGEM-UFES), Brazil, in 2007.
- **Doctor of Science (Sc.D.)** (Area: Water Resources), Environmental Engineering Department of Federal University of Espírito Santo (PPGEA-UFES), Brazil, in 2014.

2) Academic Carrier, employments, distinctions and Prizes

- **Teaching Assistant in Physics.** Physics Department of Federal University of Espírito Santo (Brazil), in 1994.
- **Mechanical Teacher.** Federal Center of Technological Education (CEFETES), Brazil, from 1997 to 2010.
- **Mechanical Teacher.** Federal Center of Technological Education (CEFETES), Brazil, from 2010 to 2013.
- **Professor Doctor of Fluid Mechanics and Transport Phenomena,** by Environmental Engineering Coordination of the Federal Institute of Espírito Santo (IFES), Brazil, since 01/02/2014.

3) Student Scholarships

- 1997 - 1998 Dynamics of Mechanical Systems and Structures - LABDIN (UFES), Brazil
- 2009 - 2014 Foundation of Support for Research and Innovation of the State of Espírito Santo (FAPES), Brazil.

4) Projects

- 1997 - 1998 Project of Assessment of the Exposure Level to Social Noise and Hearing Loss (ANERS). (Participation)
- 2009 - 2015 Smoothed Particle Hydrodynamics Applied to Free Surface of Viscous and Incompressible Fluid Flows: an Way to Control the Pollutant Dispersion. (Doctorate Project)

5) Recent Participations in Conferences

- **23rd ABCM International Congress of Mechanical Engineering (COBEM 2015).** *Numerical Study of the Generation and Propagation of Waves on Flat Beaches: an Application in Engineering using SPHysics and FUNWAVE Models.* Rio de Janeiro, Brazil, 2015.
- **XXXVI Ibero-Latin American Congress on Computational Methods in Engineering (CILAMCE 2015).** *Study of Fluid Flows using Smoothed Particle Hydrodynamics: the Modified Pressure Concept Applied to Quiescent Fluid and Dam Breaking.* Rio de Janeiro, Brazil, 2015.
- **Brazilian Congress for Engineering Education (XLII COBENGE).** *Proposta de Metodologia de Ensino de Dinâmica dos Fluidos Computacional utilizando o Método Lagrangiano SPH.* Minas Gerais, Brazil, 2014.
- **Brazilian Congress for Engineering Education (XL COBENGE).** *Metodologia de Ensino de Dinâmica de Fluidos Computacional Aplicada ao Curso de Engenharia Ambiental.* Pará, Brazil, 2012.

6) List of the most relevant papers:

- **FRAGA FILHO, Carlos Alberto Dutra;** PICCOLI, Fabio Pavan ; CHACALTANA ; BARBOSA, Danilo de Almeida. *Estudo numérico da propagação de ondas em praias planas utilizando os modelos Lagrangiano sem malhas e Euleriano.* **Revista Brasileira de Recursos Hídricos**, v. 20, p. 91-105, 2015.
- **FRAGA FILHO, Carlos Alberto Dutra;** PEZZIN, D. F. ; CHACALTANA, Julio Tomas Aquije. *A numerical study of heat diffusion using the Lagrangian particle SPH method and the Eulerian Finite-Volume method: analysis of convergence, consistency and computational cost.* **WIT Transactions on Engineering Sciences (Online)**, v. 83, p. 15-26, 2014.
- **FRAGA FILHO, CARLOS ALBERTO DUTRA;** CHACALTANA, JULIO TOMÁS AQUIJE. *Numerical Study of Heat Diffusion Employing the Lagrangian Smoothed Particle Hydrodynamics Method: an Analysis of the Applicability of the Laplacian*

Operator and the Influence of the Boundaries on the Solution. International Review on Modelling and simulations, v. 7, p. 994-1002, 2014.

- **FRAGA FILHO, Carlos Alberto Dutra**; MENANDRO, F. C. M.; Paulino, R. H. ; Romero S., J. S. *Dynamic Analysis with Stress Recovery for Functionally Graded Materials: Numerical Simulation and Experimental Benchmarking. International Review of Mechanical Engineering*, v. 7, p. 1329-1339, 2013.
- **MENANDRO, F. C. M.; FRAGA FILHO, Carlos Alberto Dutra**; Paulino,R. H. ; Romero S., J. S. *Dynamic Analysis with Stress Recovery for Functionally Graded Materials: Numerical Simulation and Experimental Testing. World Journal of Engineering*, v. 6, p. 671-672, 2009.

7) Reviewer at Conferences

- **23rd International Congress of Mechanical Engineering (COBEM)**, Rio de Janeiro, Brazil, 2015.

.8) Participation in Collaborative Research Site

- *Study of Gravity-Inertial Phase of Spreading of Oil on a Calm Sea employing the Lagrangian Particle Method Smoothed Particle Hydrodynamics (PhD Thesis), SPHERIC - SPH European Research Community, 2014.* Available from: <https://wiki.manchester.ac.uk/spheric/index.php/SPH_PhDs>. [26 February 2016].