

Joan D. Laubrie Soto

Mechanical Engineer, PhD.(c)

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Teaching

- 2017 Computational Mechanics, University of Santiago, Chile.
- 2017 Diploma in Computational Mechanics, University of Santiago, Chile.
- 2016 Introduction to Mechanical Design, Pontifical Catholic University, Chile.
- 2016 Machine Dynamics, University of Santiago, Chile.
- 2016 Strength of Materials, University of Santiago, Chile.
- 2014 - 2015 Rational Mechanics, Academia Politécnica Militar, Chile.

Work

- 2016 Project Engineer, Laboratory of Mechanical Simulations (LABSIM), DICTUC.
- 2015 Intern, SAG mill area in Concentrate plant, CODELCO - Andina.

Education

- 2017 - now Doctorate, École des Mines de Saint-Étienne, France.
- 2013 - 2015 Master of Science in Mechanical Engineering, University of Santiago, Chile.
- 2009 - 2015 Mechanical Engineer, University of Santiago, Chile.

Research projects

- now **Title:** *Localization in biomechanics and mechanobiology of aneurysms: Towards personalized medicine.* **Funding:** European Research Council. **Position:** Researcher. **Reference:** ERC-2014-CoG BIOLOCHANICS.
- 2015 **Title:** *Biomechanical behavior of soft tissues: Modelling and numerical simulation.* **Financing:** Dicyt. **Position:** Researcher. **Reference:** 051415GH.
- 2015 **Title:** *To be born high and flat (Andean Altiplano): healing vascular function and pulmonary hypertension by a combined treatment in neonatal lambs.* **Financing:** Conicyt-Fondecyt. **Position:** Researcher. **Reference:** 1151119.

Conference

- 2019.12 Laubrie S., J.D., Mousavi, J., Avril, S. Article title: *Finite-element modeling of arterial growth and remodeling after stent implantation*. Conference: Journées annuelles GDR Mécabio, 11-13 December 2019, Marseille, France.
- 2019.07 Laubrie S., J.D., Mousavi, J., Avril, S. Article title: *Computational prediction of arterial remodeling following stent-graft implantation*. Conference: 25th Congress of the European Society of Biomechanics, 7-10 July 2019, Vienna, Austria.
- 2019.06 Laubrie S., J.D., Mousavi, J., Avril, S. Article title: *A new finite-element shell model for arterial growth and remodeling*. Conference: 1st International Conference on Nonlinear Solid Mechanics, 16-19 June 2019, Roma, Italy.
- 2015.10 Laubrie S., J.D., García H., C., Celentano, D. Article title: *Caracterización experimental y numérica del daño en materiales hiperelásticos*. Conference: XIV Jornadas de Mecánica Computacional, 8-9 October 2015, Concepción, Chile.
- 2015.06 Aguilera M., Laubrie S., J.D., García H., C., Celentano, D. Article title: *Desafíos en el análisis de la respuesta mecánica de tejidos blandos: determinación de parámetros y modelación del daño*. Conference: Encuentro de elasticidad no lineal, homogeneización y fractura, 23-24 June 2015, Santiago, Chile.

Courses

- 2018.05-06 English course, University of Jean Monet (CILEC), France
- 2017-2018 French course, University of Jean Monet (CILEC), France
- 2014.10 English course, Santiago Chamber of Commerce, by means of the scholarship CORFO, Chile
- 2012.04 Fracture Mechanics course with Juan Pérez Ipiña, Departament of Metallurgical Engineering, University of Santiago, Chile.

Languages

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| Spanish | Mother language |
| English | Advanced |
| French | Advanced |

Computational skills

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| ■ GNU Linux, Windows. | ■ Abaqus, Ansys, GiD |
| ■ FORTRAN, C++. | ■ AutoCAD, SolidEdge, SolidWorks, Inventor. |
| ■ Python, Julia. | ■ L ^A T _E X, TikZ, Libre Office, MS Office |