

▶ Lucas Sanchez Fellay

Nationality: Argentine

e-mail: lucasfellay@fi.mdp.edu.ar

Education

▶ University

- **Materials Engineering Degree: Materials Engineer**, March 2010, School of Engineering, National University of Mar del Plata.

▶ Computer Skills

- SolidWorks and Autodesk Inventor, 3D CAD Design Software.
- ABAQUS Standard/Explicit, Finite Element Analysis Simulation Software.
- Moldflow and Moldex, Injection Molding Simulation Software.
- FORTRAN 90 Language Programming and Matlab Environment .

▶ Languages Skills

- English: Reading: Very Good.
Listening: Good.
Writing: Good.
Speaking: Good.

Professional Experience

▶ **Development of EPDM elastomers for aerospace applications. From June 2005 to July 2006, at Mar del Plata National University.**

Supervisor: Dr Carella, Jose Maria

Developed Tasks:

- Learn Autodesk Inventor 3D design software in order to design engineering parts which were used in test machines.
- Design entire roll mill mixer to accomplish with specific regulations. The design include create a 3D model in Autodesk Inventor, structural calculus, construction and put in operating conditions.
- Determination of an optimal chemical formulation in order to comply with specific regulations.
- Mechanical characterization of EPDM elastomers. Tensile test, hardness test, retraction at low temperatures, compression test and hydracine resistance.

► **Materials Engineering Internship, January 2007 to April 2007**
TenarisSiderca Research Centre CINI, Techint Group, Buenos Aires, Argentina

Supervisor: Dr. Goldschmit Marcela

Developed Tasks:

- Validation of a continuous cast finite element code.
- Parametric sensitivity analysis of a continuous cast finite element code.
- Implementation of a subroutine to calculate the properties of several steel alloys.

► **Electronics and design, February 2009 to December 2009**
Zen Effects, Mar del Plata, Argentina

Developed Tasks:

- Development of electronic audio and sound effects.
- SolidWorks and Autocad design of metal housings for electronic circuits.

Teaching and Research Experience

► **Graduate Teaching Assistant, March 2010 to Present**

- Physics III (Optic and Wave Behaviour) course. Physics Department, School of Engineering, National University of Mar del Plata, Argentina

► **Undergraduate Teaching Assistant, September 2005 to March 2010**

- Physics I and Physics III courses. Physics Department, School of Engineering, National University of Mar del Plata, Argentina

Awards and Scholarships

► **Polymer Mechanics Scholar, April 2010 to present**
Research Institute for Materials Science and Technology (INTEMA), National University of Mar del Plata, Argentina

Supervisor: Dr. Patricia Frontini (pmfronti@fi.mdp.edu.ar)

Developed Tasks:

- Mechanical testing and failure analysis of polymeric materials.
- Modeling and finite element simulation of the mechanical behavior of complex geometry parts.
- Preparation of technical reports.

Thesis Proposal: Instrumented Indentation: Calibration of Constitutive Equations.

Postgraduate courses taken include: Advanced Continuum Mechanics, Finite Element Analysis on ABAQUS for Solid Mechanics, Applied Mathematics for Indirect Measurements and Damage Mechanisms on Solid Materials.

▶ **Second Mention in “Instituto Sabato” award**

- This award is given by my career's final project in materials engineering.

▶ **EuroTANGO scholarship (ERASMUS/MUNDUS Action 2 Strand 1)**

- **May 1st 2011 to December 1st 2011:** at Politecnico di Torino, in DISMIC (Department of Materials Science and Chemical Engineering), supervised by Prof. Marco Vanni.

Conference Proceedings

- ▶ **16th Steelmaking Conference / 6th Ironmaking Conference / 3rd Meeting on environment & recycling.** 6 to 8 to November, Rosario, Argentina.
- ▶ **3rd SAM (Argentine Society of Materials) young researchers meeting,** 18-19 August 2010, National Technological University (UTN), Entre Rios, Argentina
- ▶ **3rd Workshop on Soft Matter, November 2010, Mar del Plata, Argentina**
“Constitutive equations for polymers in compression and confined compression load modes”
Poster Presentation.
- ▶ **L. Sanchez Fellay, J.P. Torres, L. A. Fasce and P. M. Frontini.** Surface Mechanical Characterization and Computational Simulations of the Indentation Behaviour of Glassy Polymers, International Conference on Mechanical Behaviour of Materials ICM11, Como Lake, 5/9 June 2011.