Óscar A. Nájera

Contact Information

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Research Interests

Solid State Physics, Statistical Mechanics, scientific programming & computational systems analysis

Education

Escuela Politécnica Nacional, Quito, Ecuador

Physics Student — **August, 2006 - present**

- Thesis Topic: "Estimation, by computer simulation, of the exchange energy dispersion between polar nano-regions in $Pb_xBi_4Ti_{3+x}O_{12+3x}; x = \{2, 3\}$ relaxor ferroelectrics"
- Advisor: Professor Luis Lascano
- Expected graduation date: July, 2012

Honors and Awards

Physics Olympiad 1^{st} place, Escuela Politécnica Nacional — **2010**

Academic Experience

Escuela Politécnica Nacional, Quito, Ecuador

Student — **August 2006 - present**
Includes current research and coursework

Laboratory and teacher's Assistant — **August 2011 - present**
Responsible of Experimental Physics laboratory in subjects like Newtonian Mechanics, Electromagnetism and Optics. Shared responsibility for lectures, homework assignments and grades.

International Center for Theoretical Physics, Trieste, Italy

Invited Student — **Feb 20 - Mar 2, 2012**
Participation and presentation of research work at the "Advanced School on Scientific Software Development"

Conference Presentations

Nájera, O.: "Phase transitions in random interaction Ising-like models" **In:** XVI ELAVIO, *Latin American School in Operations Research*, Feb 2012.

Other Publications

Nájera, O.: "Estimation, by computer simulation, of the exchange energy dispersion between polar nano-regions in $Pb_xBi_4Ti_{3+x}O_{12+3x}; x = \{2, 3\}$ relaxor ferroelectrics", Thesis Preliminary Examination. Department of Physics - Escuela Politécnica Nacional, April 2012.

Computer Skills

- Languages: C/C++, Linux shell scripting, Python, Php, Matlab/Octave, LaTeX
- Operating Systems: Linux(Gentoo)

Languages

- Spanish: Native speaker
- English: Fluent speaker
- German: Fluent speaker