CURRICULUM VITAE

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Date and place of birth: April 28, 1974; Otavalo, Ecuador.

Citizenship: Ecuadorian.

Education:

- *Physicist degree*, Department of Physics, National Polytechnic School, Quito, Ecuador 1999.
- *PhD in Physics*, National University of Ireland, Cork, Ireland 2006.

Current position:

Research Professor, Interdisciplinary Center for Nanotoxicity, Jackson State University, MS, USA.

Areas of specialization:

Computational condensed-matter physics and materials science; Surfaces and interphases at the nanoscale; Magnetism and strong correlated systems; Defects in graphene; Scanning probe microscopy models; Molecular dynamics; High-performance computing and Computational modeling.

Languages: Spanish (native), English (fluent), Latin (written, basic)

Employment summary:

2010- *Research Professor*, Interdisciplinary Center for Nanotoxicity, Jackson State University, MS. **USA**.
2010-12 *Director*, Corporation of Fundamental and Applied Physics, **Ecuador**.
2009-10 *Professor*, Technical University of Loja, **Ecuador**.
2007 *Visiting Scientist*, University of Liverpool, Liverpool, **UK**.
2006-09 *Post-Doctoral Associate*, Helsinki University of Technology, **Finland**.
2002-06 *PhD student*, National University of Ireland, Cork, **Ireland**.
2001 *Visiting Scientist*, Nagoya University, **Japan**.
1999-00 *Visiting Scientist*, Helsinki University of Technology, **Finland**.
1998- *Researcher*, Corporation of Fundamental and Applied Physics, **Ecuador**.
1998-99 *Research Assistant*, Department of Physics, National Polytechnic School, **Ecuador**.

Fellowships, Awards and Distinctions:

- *Winner of the BOC Gases Postgraduate Student Bursary Award, BOC gases Ireland Ltd, Tyndall National Institute, Ireland, 2005.*
- *Research grant, Third World Academy of Sciences TWAS, Italy, 2001.*
- *Fellowship, The Matsumae International Foundation MIF, Japan, 2000.*
- *Fellowship, Center for International Mobility CIMO, Finland, 1999.*
- *The Best Student of the Year, Faculty of Science, National Polytechnic School, Ecuador, 1998.*

Selected Publications (25 Journal papers, 34 conference abstracts)

1. H. Pinto, A. Stashans, *Computational study of self-trapped hole polarons in tetragonal $BaTiO_3$* – Phys. Rev. B **65**, 134304 (2002).
2. H. Pinto, R. M. Nieminen, S. D. Elliott. *Ab–initio study on γ–Al_2O_3 surfaces* – Phys. Rev. B **70**, 125402 (2004).
3. H. Pinto, S. D. Elliott. *The short-range nature of the Verwey transition in Fe_3O_4: band structure and Jahn-Teller distortion* – J. Phys.: Condens. Matter **18**, 10427 (2006). **IOPselect**
4. G. H. Enevoldsen, H. P. Pinto, A. S. Foster, M. C. R. Jensen, A. Kühnle, M. Reichling, W. A. Hofer, J. V. Lauritsen, F. Besenbacher. *Detailed scanning probe microscopy tip models determined from simultaneous atom-resolved AFM and STM studies of the TiO_2(110) surface* – Phys. Rev. B **78**, 045416 (2008). Editor's suggestion
5. G. H. Enevoldsen, H. P. Pinto, A. S. Foster, M. C. R. Jensen, W. A. Hofer, B. Hammer, J. V. Lauritsen, F. Besenbacher. *Imaging the hydrogen subsurface site in rutile TiO_2* – Phys. Rev. Lett. **102**, 136103 (2009).
6. F. Chiaravalloti, H. P. Pinto, D. Riedel, A. S. Foster, G. Dujardin. *Atomic-scale study of the adsorption of calcium fluoride on Si(100) at low-coverage regime* – Phys. Rev. B **84**, 155433 (2011).

Books and others:

1. H. Pinto, C. Costa, "Guia para el laboratorio de Optica", Editorial EPN, Quito, Ecuador, **1999**.
2. A. Stashans, S. Gonzalez, H. Pinto (editors), "Electronic and Catalytic Properties of Advanced Materials", Research Signpost/ Transworld Research Network, **2012**.
3. H. Pinto, "Computational nanoscience using density functional theory", To be publish by Springer, **2013**.

Teaching experience:

- Laboratory in: Optics and Electromagnetism; Introduction to Mathematica, *Department of Physics, National Polytechnic School, Quito,* **Ecuador**
- Problems sessions in: Classical Mechanics, Thermodynamics, Electricity and electrical circuits, Electromagnetism, Optics, Special Relativity and Quantum mechanics; *National University of Ireland, Cork,* **Ireland**.
- *Physics for Biological Sciences,* Technical University of Loja, **Ecuador**.
- Postgraduate lectures: Atomic and Molecular Spectroscopy, *Department of Chemistry, Jackson State University, MS,* **USA**.

Offered workshops:

- *"Nanomanipulation of Atoms and Molecules using STM: Experiment and Theory"*, Interdisciplinary Center for Nanotoxicity, Jackson State University, Jackson (USA), **2012**.
- *"Computational Nanoscience Using DFT"*, Semana de la Ciencia, Universidad Central del Ecuador, Quito (Ecuador), **2012**.
- *"Computational Nanoscience Using DFT"*, 6ª Escuela de Ciencia de Materiales y Nanotecnología, Instituto de Investigación en Materiales, UNAM, Morelia (México), **2010**.
- *"Chemistry on the Computer Using Density-Functional Theory"*, XV COLAEIQ, San Salvador (El Salvador), **2009**.
- *"Exploring the Behavior of Nanomaterials"*, I Congreso Nacional de Estudiantes y II Jornadas de Ingeniería Química, UTPL, Loja (Ecuador), **2008**.