Julio Ernesto Hernández Palacios

Date of birth: 26.06.1979
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Education

2009-today	*PhD – Applied Physics* University of Oslo (UiO), Oslo, Norway.
2004-2006	*MSc – Nanoscale Science and Technology* Chalmers University of Technology (CTH), Göteborg, Sweden.
1998-2004	*BSc – Physics* National University of Mexico (UNAM), Mexico City, Mexico.

Research & Teaching

2008-today	Research and development of hyperspectral imagers in the low light level regime for biophysical applications at Norsk Elektro Optikk A/S (NEO) in Lørenskog, Norway.
2006-2008	Research and development on thermodynamic processes and insulating materials in high vacuum for the efficient storage of cryogenic liquids at Envases de Acero SA de CV (EDASA), Mexico City.
2005-2006	Research and experimentation with dye lasers, solid state physics, high vacuum and low temperature systems for quantum computing at the Lund Institute of Technology (LTH) in Lund, Sweden.
2004	Research and fabrication of semiconductor lasers and liquid crystal cells at the Nanofabrication Laboratory MC2-CTH in Göteborg, Sweden.
2003-2004	Research Assistant on theoretical quantum physics at the Physics Institute UNAM (IF-UNAM), Mexico.
2003-2004	Teaching Assistant in "Theoretical Quantum Mechanics" course at the College of Sciences UNAM, Mexico.

Current Activity

Early Stage Researcher in the Hyper-I-Net Consortium within the FP6 Marie Curie Research Training Networks Program hosted by Norsk Elektro Optikk A/S and the Forsvarets Fosknings institutt (FFI), Norway.

Language, Computing & Lab Skills

- Spoken languages: Native Spanish · English 100%, TOEFL score (2006): 283/300 · Norwegian: Basic
- Practical knowledge of Windows, Windows' Office, Linux, Matlab & LaTex. Basic knowledge of Maple, Mathematica and C++.
- Lab experience with: cryostats, dye lasers, e-beam systems, general optical equipment, imaging spectrometers, mass spectrometers, spectrofluormeters, spectrographs, vacuum pumps, etc.
- Lab techniques experience: clean room procedures, cryogenic liquids handling, dry etching, lithography, thin film deposition, x-ray crystallography, etc.

Fellowships & Scholarships

2010-2012	CONACyT Scholarship for Graduate Studies
2008-2011	Research Council of Norway, IS-TOPP Program
2008-2011	Marie Curie Actions Early Stage Researcher Fellowship (EU)
2004-2006	SEP Complementary scholarship for postgraduate studies (Mexican Govt.).
2004-2006	STINT Scholarship for postgraduate students (Swedish Govt.).
2003-2004	SNI Fellowship for Research Assistants (Mexican Research Council).
2003	PROBETEL-UNAM Fellowship for Thesis Projects (University Funding).
2003	DGAPA-UNAM Fellowship (University Funding).
1998-2003	TELMEX Foundation Scholarship (Private Company Funding).

Publications

2009 J. Hernandez-Palacios, I. Baarstad, T. Løke, L. L. Randeberg, T. Skauli, "Design and characterization of a hyperspectral camera for low light imaging with example results from field and laboratory applications" in *Proc. of the 6th EARSeL SIG IS workshop*, Tel Aviv, Israel, 2009.

Conferences

2009 "Design and characterization of a hyperspectral camera for low light imaging with example results from field and laboratory applications", the 6th EARSeL SIG IS workshop, Tel Aviv, Israel, March 2009.

Previous Thesis Projects

2006 – The MSc project *"Spectroscopy in Ce3+:Y2SiO5: A preliminary investigation for a single ion readout scheme for quantum computation with rare-earth ions doped crystals*" was carried out in the Atomic Physics Division of the Institute of Physics, LTH, under the supervision of Professor Stephan Kröll. This project focused on the development of an experimental optic setup used to characterize the energy transitions of cryogenic-cooled Ce ions aimed to be used to enable faster information transfer between co-doped rare earth ion qubits.

2004 – The BSc project *"A new solution for the one-dimensional Schrödinger equation and its relation to the semiclassical approximation"* was developed at the Theoretical Physics Dept. of the Physics Institute, UNAM, under the supervision of Professor Matías Moreno-Yntriago. The solution found in this project resembles the one used in the semiclassical approximation when the quantum potential required by the new one takes certain values. This result was used to study and explain the behavior of the semiclassical approximation in the classically forbidden regions.

Recent Courses & Seminars

2009 3rd Hyper-I-Net Summer School. Pavia, Italy, September 8-11.
2009 6th EARSeL SIG IS workshop. Tel Aviv, Israel, March 16-19.
2008 2nd Hyper-I-Net Summer School. Wageningen, The Netherlands, September 15-19.

References

Provided upon request.