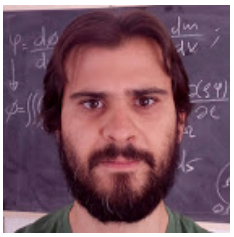
Enrique Moreno Pérez



PERSONAL DETAILS

Enrique Moreno Pérez
Calle Transversal de Santa Elena, 13
18200 Maracena (Granada)
SPAIN

Telephone:(+34)675878915
*e-mail:*enrique@moreno.ws
*Webs:*enrique.moreno.ws
granalgae.eu

NATIONALITY

Spanish, EU.

MY RESEARCH INTERESTS

Interaction of electromagnetic radiation and matter, theoretical classical electrodynamic, optical technology, technology based on semiconductors and solid state physics, modeling of FET, modeling biological systems and modeling physical systems.

EDUCATION

University of Chile, Santiago de Chile, CHILE

Postdoctoral Student, currently

University of Granada, Granada, SPAIN

PhD in Physics and Mathematics, 2015

Master in Advanced Method and Techniques in Physics, 2010

Bachelor Degree in Fundamental Physics, 2010

Cork Institute Of Technology, Cork, IRELAND

Bachelor of Science (Honours) in Applied Physics and Instrumentation, 2008
Download the final project at Tyndall National Institute.

ANECA

PhD assistant lecturers

PUBLICATIONS

E. Moreno, J.B. Roldán, F.G. Ruiz, D. Barrera, A. Godoy, F. Gámiz, **An analytical model for square GAA MOSFETs including quantum effects**, Solid-State Electronics, Volume 54, Issue 11, November 2010, Pages 1463-1469. http://dx.doi.org/10.1016/j.sse.2010.05.032

Moreno Pérez, E.; Roldán Aranda, J.B.; Garcia Ruiz, F.J.; Barrera Rosillo, D.; Ibanez Pérez, M.J.; Godoy, A.; Gámiz, F., **An Inversion-Charge Analytical Model for Square Gate-All-Around MOSFETs,** IEEE Transactions on Electron Devices, vol.58, no.9, pp.2854,2861, Sept.2011.
http://dx.doi.org/10.1109/TED.2011.2159222

E. Moreno, M. F. Pantoja, S. G. García, A. R. Bretones, and R. G. Martín, **Time-Domain Numerical Modeling of THz Photoconductive Antennas**, Transactions on Terahertz Science and Technology, May 2014
http://dx.doi.org/10.1109/TTHZ.2014.2327385

E. Moreno, M. F. Pantoja, S. G. García, M.D. Nuñes, A. R. Bretones, **A comparison of the performance of THz photoconductive antennas**, IEEE Antennas and Wireless Propagation Letters, 2014.
http://dx.doi.org/10.1109/LAWP.2014.2314260

E. Moreno, M. F. Pantoja, Francisco G. Ruiz, Juan B. Roldan, S. G. García, **On the numerical modeling of terahertz photoconductive antennas**, Journal of Infrared, Millimeter, and Terahertz Waves, 2014.
http://dx.doi.org/10.1007/s10762-014-0060-5

E. Moreno, M.P. Villada, F.G. Ruiz, J.B. Roldán and EG Marín, **A new explicit and analytical model for square Gate-All-Around MOSFETs with rounded corners**, Solid-State Electronics, 2015.
http://dx.doi.org/10.1016/j.sse.2015.06.004

E. Moreno, Z. Hemmat, M. F. Pantoja, A.R. Bretones, S. G. García and J.B. Roldán, **Time-domain numerical modeling of THz receivers based on photoconductive antennas** , Journal of the Optical Society of America B, 2015.
http://dx.doi.org/10.1364/JOSAB.32.002034

Z. Hemmat, F. Radfar, E. Moreno and F. Rasouli, **Transient and steady state study of a rear-illuminated 6H-SiC Photoconductive Semiconductor Switch**, Optik - International Journal for Light and Electron Optics, 2016.
http://dx.doi.org/10.1016/j.ijleo.2016.01.174

E. Moreno, Z. Hemmat, M. F. Pantoja, A.R. Bretones, S. G. García, J.B. Roldán and R. Faez, **Implementation of open boundary problems in photoconductive antennas by using convolutional perfectly matched layers**, Transactions on Antennas and Propagation, 2016.
http://dx.doi.org/10.1109/TAP.2016.2602357

E. Moreno and J.B. Roldán, **Resistive random access memory electromagnetic compatibility ADE-FDTD study**, TRANSACTIONS ON ELECTROMAGNETIC COMPATIBILITY, 2017 (Accepted)

E. Moreno, R. Sohrabi, G. Klochok and E. Michael **Vertical versus planar pulsed photoconductive antennas that emit in the terahertz regime**, International Journal for Light and Electron Optics, 2018
https://doi.org/10.1016/j.ijleo.2018.03.096

E. Moreno and L. Varani, **An analytical mobility model for InGaAs**, Lithuanian Journal of Physics, 2018 (Accepted, it will be published in June 2018)

Congresses

An Analytical Model For Square GAA MOSFETs Including Quantum Effects, E. Moreno, J.B. Roldán, F. García-Ruiz, D. Barrera, A. Godoy, F. Gámiz
EUROSOI, 2010 (Sixth Workshop of the Thematic Network on Silicon on Insulator technology, devices and circuits)

An Advanced Mathematical Approach To The Nanoelectronic Device Modelling, E. Moreno, J.B. Roldán, D. Barrera, M.J. Ibánez, F.G. Ruiz, and A. Godoy
MME10 International Conference on Mathematical Methods in Engineering. Coimbra (Portugal), 2010.

An Analytical Electric Potential Model For Square Gate-All-Around MOSFETs, E. Moreno, J. Roldán, F. G. Ruiz, A. Godoy, D. Barrera, M. J. Ibáñez, F. Gámiz
EUROSOI, 2011 (Seventh Workshop of the Thematic Network on Silicon on Insulator technology, devices and circuits)

Time Domain Simulation of THZ Photoconductive Antennas, Enrique Moreno-Pérez, Mario F Pantoja, Salvador G. García, Amelia Rubio Bretones, Rafael Gómez Martín
EUCAP 2012 (THE 6TH EUROPEAN CONFERENCE ON ANTENNAS AND PROPAGATION)

On the Simulation of Carrier Dynamics in Terahertz Photoconductive Antennas, Enrique Moreno-Pérez, Mario F Pantoja, Salvador G. García, Juan Roldán, Francisco García Ruiz, Amelia Rubio Bretones, Rafael Gómez Martín
EUCAP 2013 (THE 7TH EUROPEAN CONFERENCE ON ANTENNAS AND PROPAGATION)

Full-wave Simulation of THz Photoconductive Antennas, Mario F Pantoja, Salvador G. García, Enrique Moreno, Amelia R. Bretones, Rafael Gómez Martín
39th International Conference on Infrared, Millimeter, and Terahertz Waves, 2014

Effect of Radial Structure on the performance of a Lateral GaAs High Power Photoconductive Switch, Z. Hemmat, E. Moreno, R. Faez
23rd Iranian Conference on Electrical Engineering (ICEE2015)

Projects

HIRF SE: High Intensity Radiated Field Synthetic Environment

Funding supply entity: Seventh Framework Programme (FP7)

Entities involved in the project: University of Granada and 43 companies and organizations more.

Time in the project: 2011-2013

Responsible researcher: Dr. SALVADOR GONZÁLEZ GARCÍA

TERAHERTZ TECHNOLOGY FOR ELECTROMAGNETIC SENSING APPLICATIONS

Funding supply entity: Min. Ciencia e Innovación (Consolider-Ingenio 2010)

Entities involved in the project: UPC, UPM, UAH, UPV, UVIGO, UGR, UNIOVI, UAM, UAB, UNICAN, UC3M

Time in the project: 2011-2013

Responsible researcher: Prof. RAFAEL GÓMEZ MARTÍN

TERALAB: NUMERICAL LABORATORY FOR DESIGN AND SIMULATION OF THz TECHNOLOGY

Funding supply entity: Junta de Andalucía (Proyectos de Excelencia) (Referencia: P09-TIC-5327)

Entities involved in the project: University of Granada

Time in the project: 2013-2014

Responsible researcher: Dr. MARIO FERNÁNDEZ PANTOJA

A-UGRFDTD: Advanced UGRFDTD Electromagnetic Computer Simulation Tool

Funding supply entity: EADS-Construcciones Aeronáuticas SA. (Número de contrato 3713-00)

Entities involved in the project:

Time in the project: 2012-2014

Responsible researcher: Prof. AMELIA RUBIO BRETONES & Dr. SALVADOR GONZÁLES GARCÍA

Proyecto de Innovación docente: Elaboración de biblioteca audiovisual con material didáctico adaptado al EEES en la enseãnza de electromagnetismo. (Código del proyecto: 11-122).

Funding supply entity: Vicerrectorado de Ordenación Académica y Profesorado

Entities involved in the project: University of Granada

Time in the project: 2011-2013

Responsible researcher: Dr. CARLOS MORENO DE JONG VAN COEVORDEN

Proyecto de Innovación docente: Desarrollo de nuevas prácticas en el campo de la óptica de la visión.

Funding supply entity: Vicerrectorado de Ordenación Académica y Profesorado

Entities involved in the project: University of Granada

Time in the project: 2007

Responsible researcher: Dr. Maria de Mar Pérez Gómez.

ADVANCED NUMERICAL TECHNIQUES APPLIED TO ELECTROMAGNETIC COMPATIBILITY PROBLEMS IN AERONAUTICS.

Funding supply entity: Ministerio de Economia, Innovación y Ciencia de la Junta de Andalucia.

Entities involved in the project: University of Granada.

Time in the project: 2014/2018

Responsible researcher: Prof. AMELIA RUBIO BRETONES

Seminars

Workshop Computational Electromagnetics for EMC, 2013

VII Workshop of the Thermic Network on Silicon On Insulator, Technology, Devices and Circuits, 2011

Campus de Verano CEI BIO-TIC GENIL Master Métodos y Técnicas Avanzadas en Física, 2011

Scholarships and academic awards

- Research contract (University of Granada): 2010-2014.
- Ministry of Education scholarship: Master, 2009-2010.
- European mobility scheme for physics students scholarship: BSH Cork, 2007-2008

- Academic award by the programming of the human eye modulation transfer function, 2006-2007
  (Download program: http://enrique.moreno.ws/download/13dfsd454/MTF.7z)
- Academic award of a biomechanical model of human eye, 2006-2007
  (Download notebooks: http://enrique.moreno.ws/download/13dfsd454/VISION.7z)

Tools

Mathematica, COMSOL, Matlab, C, Fortran (MPI,OMP), Pascal, Dephi (Lazarus), Debian, Ubuntu, Labview, GID, Open Foam, Eclipse, Atlas, Paraview, Spice, Latex, Qtiplot, Inkscape, Microsoft: Windows (XP, 7, Vista), Office...

Languages

- English → B2 [TOEFL]
- Spanish → Mother language