

# José Ramón Martínez Saavedra

## Curriculum Vitae



+34 935 542 257  
www.jrmsaavedra.net

### Personal Information

Birth November 24th, 1990 (Madrid, Spain)  
Nationality Spanish  
ID Number 52017914-X  
Status Single  
Current position **Ph.D. Student**, *ICFO-The Institute of Photonic Sciences*, Nanophotonics Theory Group

### Research Fields and Interests

Nanophotonics, plasmonics, graphene plasmonics, DNA nanophotonics.

### Education

2014 to date **Ph.D. in Photonics**, *ICFO-The Institute of Photonic Sciences*, Castelldefels-Barcelona.  
Supervised by Prof. Dr. F. Javier García de Abajo.  
2013–2014 **M.Sc. in Photonics**, *Universitat Politècnica de Catalunya*, Barcelona.  
Master Thesis: *Effect of electron-phonon coupling on the lifetimes of plasmons in graphene nanoislands*. Supervised by Prof. Dr. F. Javier García de Abajo.  
2008–2013 **Extended B.Sc. in Physics**, *Universidad Complutense de Madrid*, Madrid.  
5-year plan. Specialized in Fundamental Physics

### Professional Experience

#### Vocational

09/2014 to date **Ph.D. Student**, *ICFO-The Institute of Photonic Sciences*, Castelldefels-Barcelona.  
Research in the *Nanophotonics Theory Group*, under the supervision of Prof. Dr. F. Javier García de Abajo.  
09/2013–08/2014 **Research Engineer**, *ICFO-The Institute of Photonic Sciences*, Castelldefels-Barcelona.  
Research in the *Nanophotonics Theory Group*, under the supervision of Prof. Dr. F. Javier García de Abajo.

## Miscellaneous

07/2008–**Administrative Assistant**, *Gedosol Soluciones Globales S.L.*, Rivas-Vaciamadrid.  
09/2008 Document managing and digitalization

## Grants and Scholarships

03/2015 to **Ph.D. Grant (FI-B)**.  
date Financing Organism: AGAUR-*Agència de Gestió d'Ajuts Universitaris i de Recerca. Generalitat de Catalunya*

## Publications

### Peer-Reviewed Journals

#### **Hot-Electron Dynamics and Thermalization in Small Metallic Nanoparticles.**

J.R.M. Saavedra, Ana Asenjo-García, and F. Javier García de Abajo

**ACS Photonics** (2016)

#### **Smith-Purcell radiation emission in aperiodic arrays.**

J.R.M. Saavedra, D. Castells-Graells, and F. Javier García de Abajo

**Phys. Rev. B**, 94, 035418 (2016)

#### **Phonon excitation by electron beams in nanographenes.**

J.R.M. Saavedra and F. Javier García de Abajo

**Phys. Rev. B**, 92, 115449 (2015)

## Conferences

### Invited Contributions

October 2015 **Optical Technologies for Society**, *CSIC-British Council*, Madrid, Spain.

*Electron beams for nanophotonics in the atomic scale*

J. R. M. Saavedra, and F. J. García de Abajo

### Oral Contributions

August 2016 **SPIE Optics+Photonics**, San Diego, United States.

*Complete optical absorption of ultrashort pulses by plasmons in nanostructured graphene*

J. R. M. Saavedra, S. Wall, G. Cerullo, V. Pruneri, and F. J. García de Abajo

June 2015 **CLEO Europe 2015**, Munich, Germany.

*Effect of electron-phonon coupling on the plasmon lifetimes in nanographene*

J. R. M. Saavedra, and F. J. García de Abajo

March 2015 **ImagineNano 2015**, Bilbao, Spain.

*Probing nanographene phonons with electron energy-loss spectroscopy*

J. R. M. Saavedra, J. J. López, and F. J. García de Abajo

### Poster Contributions

July 2016 **META 2016**, Torremolinos, Spain.

*Smith-Purcell radiation emission by non-periodic array nanostructures*

J. R. M. Saavedra, D. Castells-Graells, and F. J. García de Abajo

*Complete optical absorption of ultrashort pulses by plasmons in nanostructured graphene*

J. R. M. Saavedra, S. Wall, G. Cerullo, V. Pruneri, and F. J. García de Abajo

- February 2016 **Nanolight 2016**, Benasque, Spain.  
*Smith-Purcell radiation emission by non-periodic array nanostructures*  
 J. R. M. Saavedra, D. Castells-Graells, and F. J. García de Abajo  
*Phonon excitation by electron beams in nanographenes*  
 J. R. M. Saavedra and F. J. García de Abajo
- May 2015 **Surface Plasmon Photonics (SPP7)**, Jerusalem, Israel.  
*Effect of electron-phonon coupling on the plasmon lifetimes in nanographene*  
 J. R. M. Saavedra, and F. J. García de Abajo  
*Phonon losses in electron energy-loss spectroscopy of nanographene*  
 J. R. M. Saavedra, J. J. López, and F. J. García de Abajo
- March 2015 **ImagineNano 2015**, Bilbao, Spain.  
*Effect of electron-phonon coupling on the plasmon lifetimes in nanographene*  
 J. R. M. Saavedra, and F. J. García de Abajo
- January 2015 **Nanometa 2015**, Seefeld in Tirol, Austria.  
*Effect of electron-phonon coupling on the plasmon lifetimes in nanographene*  
 J. R. M. Saavedra, and F. J. García de Abajo

## Language Skills

Spanish **Native**  
 English **Fluent**

## Technical Skills

Programming	C/C++, Bash, Python	Artistic design	Adobe Photoshop, Adobe Illustrator, Blender
Software	Windows, Office, Linux, Mac OS X, LibreOffice	Scientific writing	LaTeX
Scientific Computation	Mathematica, Maple, Gaussian 09, Matlab	Web	HTML, CSS, Wordpress, Bootstrap, Javascript

## Teaching Experience

2011–2012 **Course assistant**, *Mathematics*.  
 B.Sc. in Physics. Universidad Complutense de Madrid.

## Additional Formation

2015 to date **B.Sc. in Economics**, *UNED-National University of Distance Education*.  
 2006–2008 **Cisco Certified Network Associate**, *Salesianos Atocha*, Madrid.  
 Design, setup and managing of computer networks with less than 100 computers.

## Additional Professional Experience

2008–2013 **IT assistant**.  
 Design, setup and managing of computer networks for different companies

2012–2013 **Private tutor**.  
 Tutoring on *Fundamental Physics* and *Mathematics for Biologists*