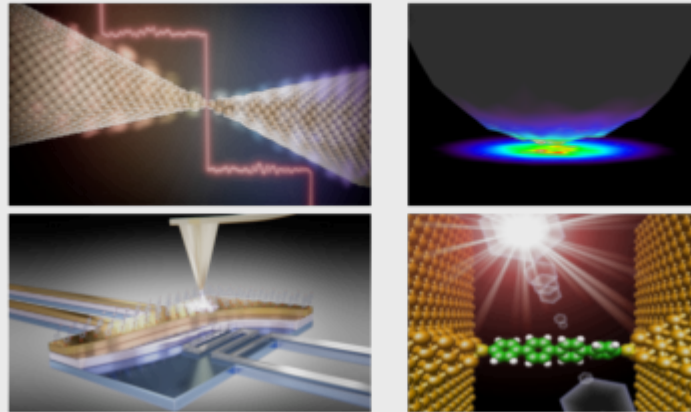


## Theoretical Nanoscale Thermal Transport

**UAM** Universidad Autónoma de Madrid

**FTMCMAC**  
Condensed Matter Physics Center



Position type: PhD position in Theoretical Condensed Matter Physics (FPI fellowship).

Topic: Nanoscale thermal transport.

Duration: 4 years.

Principal Investigator: Juan Carlos Cuevas (<http://webs.ftmc.uam.es/juancarlos.cuevas/>).

Requirements: Graduate in Physics that have completed a Master in Condensed Matter Physics or related areas.

When to apply: from 8 to 29 October (2018).

How to apply: via sede electrónica del Ministerio Ciencia, Innovación y

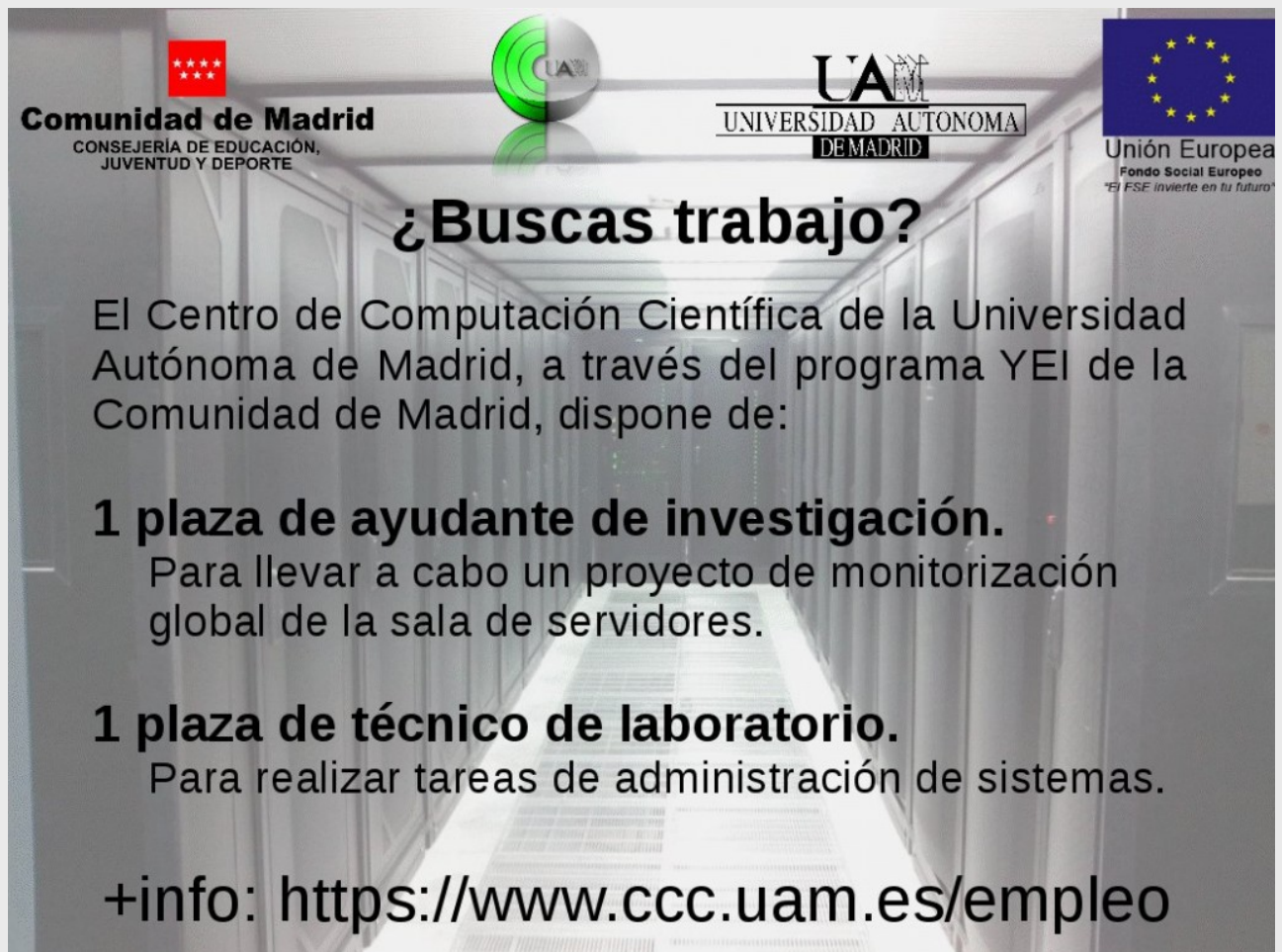
Universidades: <https://sede.micinn.gob.es/portal/site/eSede/>

Approximate starting date: February 2019.

For more info: contact me at [juancarlos.cuevas@uam.es](mailto:juancarlos.cuevas@uam.es)

Description of the project:

**T**he general goal of this project is the theoretical study of several fundamental aspects of nanoscale thermal transport. In particular, we want to improve our current understanding of the radiative heat transfer and thermal radiation in nanoscale systems. We also want to elucidate the fundamental physical mechanisms that govern the heat conduction in atomic-scale junctions. Additionally, we intend to study the energy dissipation and, in particular, the thermoelectric cooling in molecular junctions. All these issues are of fundamental importance for many different fields and disciplines such as thermal sciences, nanoelectronics, nanooptics, and condensed matter physics. Moreover, these problems are key to developing novel technologies like near-field based thermal management, thermophotovoltaics, and nanoscale energy conversion.



**¿Buscas trabajo?**

El Centro de Computación Científica de la Universidad Autónoma de Madrid, a través del programa YEI de la Comunidad de Madrid, dispone de:

- 1 plaza de ayudante de investigación.**  
Para llevar a cabo un proyecto de monitorización global de la sala de servidores.
- 1 plaza de técnico de laboratorio.**  
Para realizar tareas de administración de sistemas.

+info: <https://www.ccc.uam.es/empleo>

**T**wo HPC Systems Administrator positions available within YEI program from “Comunidad de Madrid”.

For more information please visit [CCC-UAM website](https://www.ccc.uam.es/empleo).

**C**ondensed Matter Physics Center – IFIMAC through “Acreditación de Excelencia María de Maeztu” programme provides up to 4 Master Grants for candidates who wish to obtain an official master degree at Universidad Autónoma de Madrid related to IFIMAC. The call for proposal will be open from September 8th to September 22nd, 2017.

Deadline: September 22nd, 2017 at 15.00 h.

For more information please visit [IFIMAC's website](#).

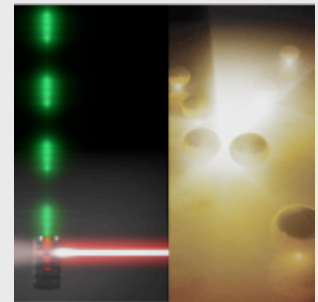
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### [Postdoctoral Position Available at IFIMAC and FTMC on Classical and Quantum Electrodynamics of light-matter Coupling – Closed](#)

Project Title: Classical and Quantum Electrodynamics of light-matter coupling (FIS2015-64951-R).

Funding Agency: Programa Estatal de I+D+i Orientada a los Retos de la Sociedad (MINECO).

PIs: [A. I. Fernandez-Dominguez](#), Fabrice Laussy & [Elena del Valle](#).



**A** 2-year postdoctoral position is open to work on the project Classical and Quantum Electrodynamics of light-matter coupling – CLAQUE, funded by the Spanish MINECO under the Programa Estatal de I+D+i Orientada a los Retos de la Sociedad. CLAQUE is a collaborative theoretical project designed by a team of young, leading scientists which aims to address open, fundamental and technologically-oriented problems involving classical and quantum aspects of light and light-matter interactions. CLAQUE brings together complementary areas of expertise to address currently open problems in nano- and quantum-optics. It aims at setting on foot exploratory strategies with potential ground-breaking implications, and opening new fronts of research by

merging different approaches to closely related problems. The project focuses on novel phenomena emerging from the tuning and optimization of quantum correlations [1] in exciton-plasmon, and other hybrid light confining, platforms [2].

In the context of this research project, the postdoctoral researcher will work on the design and exploration of tailored nonclassical light sources through the spectral and spatial distillation of quantum correlations at the nanoscale.

For further information and to apply, please contact [Elena del Valle](mailto:elena.delvalle@uam.es) at [elena.delvalle@uam.es](mailto:elena.delvalle@uam.es). Applications should include a cover letter, CV, and contact information for two references. Initial appointments will be for one year, with possible extension to the second year. Applications will be received until April 15 2017.

[Official announcement.](#)

References

C. Sanchez Muñoz, E. del Valle, A. González-Tudela, K. Müller, S. Lichtmannecker, M. Kaniber, C. Tejedor, J. J. Finley and F. P. Laussy, Nat. Photon., 8, 550 (2014).

R.-Q. Li, D. Hernangómez-Pérez, F. J. García-Vidal and A. I. Fernández-Domínguez, Phys. Rev. Lett. 117, 107401 (2016).

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## [Pre-doctoral Training Program at IFIMAC - Center of Excellence Severo Ochoa 2015 - Closed](#)

**T**he Condensed Matter Physics Center (IFIMAC) offers four positions to develop a PhD thesis at the IFIMAC within the Pre-doctoral training program in Centers of Excellence Severo Ochoa 2015, funded by MINECO. Each grant is associated with one of the strategic research lines within IFIMAC, namely:

Soft Condensed Matter and Biophysics. [\[see PhD projects\]](#)

First Principles Simulation and Modeling. [\[see PhD projects\]](#)

Advanced Materials and Nanophysics. [\[see PhD projects\]](#)

Nano and Quantum Optics. [\[see PhD projects\]](#)

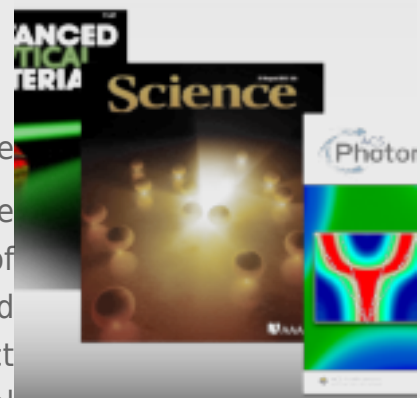
The candidates should have an excellent academic track record and have to be inscribed in a Doctorate's program for the course 2015-2016 The application has to be filed through the [MINECO Web page](#).



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## PhD Studentship Funded by the EU-FP7 Marie Curie Career Integration Grants – Closed

**A** 4-year PhD studentship funded by the EU-FP7 Marie Curie Career Integration Grants scheme is available. The research work will be focused on the theoretical description of surface-plasmon-assisted phenomena at the nano- and subnano-metric scales. The ultimate objective of the project is to devise theoretical tools able to describe the optical properties of macroscopic-sized systems where the quantum character of light and matter cannot be neglected.



### Project Information

Funding agency: EU FP7 Marie Curie Career Integration Grants Scheme

Project acronym: [MESOPLAS](#)

Principal investigator: [Antonio I. Fernández Domínguez](#)

Deadline: May 1st, 2015

Contact: Interested applicants must contact by e-mail directly [A. I. Fernández-Domínguez](#) at [a.fernandez-dominguez@uam.es](mailto:a.fernandez-dominguez@uam.es)

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