Position details: A post-doc position is available at the Faculty of Science of University Autónoma de Madrid (UAM) in the framework of the "Research Program for Excellence for University Positions at UAM". The research will be developed under the supervision of Prof. A. Palacios (http://atosur.qui.uam.es/alicia/index.html) from the Chemistry Department, and in collaboration with Prof. J. Feist (https://johannesfeist.eu) from the Condensed Matter Physics Center (IFIMAC) and Department of Theoretical Condensed Matter Physics.

The research project: The aim of the project is to theoretically investigate the correlated electron dynamics induced by attosecond laser pulses and strong electromagnetic fields on atoms and small molecules. The work will be partly performed in collaboration with international experimental groups. Recent related work of the group members and collaborators can be found in:

- 1. A. Palacios et al, "Molecular interferometer to decode attosecond electron-nuclear dynamics", *Proc. Natl. Acad. Sci.* **111**, 3973 (2014)
- 2. M. Ossiander et al, "Attosecond correlation dynamics" Nature Physics 13, 280 (2017)
- 3. D. Jelovina, J. Feist, F. Martín and A. Palacios, "A pump-probe scheme with a single chirped pulse to image electron and nuclear dynamics in molecules", *New J. Phys.* **20** 12004 (2018)
- 4. D. Boll, O. Fojón, C. W. McCurdy and A. Palacios, "Angularly resolved two-photon above threshold ionization of helium" *Phys. Rev. A* **99** 023416 (2019) *Editor's suggestion*
- 5. R.E.F. Silva, J. del Pino, F. J. García-Vidal and J. Feist, "Polaritonic molecular clock for all-optical ultrafast imaging of wavepacket dynamics without probe pulses", *Nature Comm.* **11** 1423 (2020)

Candidate Profile: PhD degree in Physics or Chemical Physics or related fields. Strong background in atomic, molecular and optical physics, attosecond physics, scattering theory, numerical methods, and programming.

Duration & Starting date: The position should start on 2021, preferably not later than **March 1**st, **2021** with a one-year duration, extendable for a second year. Special working arrangements might be agreed during the pandemic.

Gross Salary: 30,000 € /year approx..

Application: Applicants should send an expression of interest, including their CV and contact information for 2 references (in a single pdf file named as the candidate) to beatriz.martin@uam.es by December 14, 2020 (please, include the title of the position you are applying for in the subject of the message).

Recommendation letters could be requested during the selection process. Selected candidates shall be contacted for an interview. For more information about the position/project: alicia.palacios@uam.es

Beatriz Martín Llorente

Departamento de Química, Gestión de proyectos.

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