Álvaro Jiménez Galán

contact

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Germany

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in alvaro-jimenez-galan

languages

spanish (mother tongue)
english (fluency)
german (intermediate)
french (basic)

programming

python, bash, fortran, Quantum ESPRESSO, Wannier90, gnuplot, LaTeX, mathematica, inkscape, github

experience

2016–Now **Research Scientist**
Max Born Institute (Berlin, Germany)
Leading researcher of the projects:
- Attosecond opto-electronics in novel quantum materials (press release)
- High harmonic spectroscopy in condensed matter systems
- Generation and characterisation of polarization-tailored ultrashort pulses (press release)

2013 **Visiting Scientist**
LCPMR, Université Pierre et Marie Curie (Paris, France)
3-month stay in the group of Richard Taïeb and Alfred Maquet

2011–2015 **PhD Candidate**
Universidad Autónoma de Madrid (Madrid, Spain)
Working on time-resolved correlated electron dynamics in atoms (press release)

education

2015 **PhD** in Theoretical Chemistry and Computational Modelling
Universidad Autónoma de Madrid, Spain
Dissertation: Attosecond spectroscopy of autoionizing states
Supervisors: Luca Argenti and Fernando Martín
Jury: A. Maquet, P. Salières, E. Lindroth, J. Burgdörfer, J. González-Vázquez
Grade: 10/10 (summa cum laude)

2013 **European Master** in Theoretical Chemistry and Computational Modelling
Universidad Autónoma de Madrid, Spain
Dissertation: Attosecond interferometric spectroscopy of doubly-excited states in helium
Grade: 9.9/10 (highest grade in promotion)

2010 **Licenciatura (Bachelor + M. Sc. equivalent)** in Physics
Universidad Autónoma de Madrid, Spain

courses

2018 **Course on theoretical solid state chemistry: theory, modelling, and simulation**
CECAM Zaragoza, Spain

2016 **QUTIF (Quantum Dynamics in Tailored Intense Fields) Research School**
Rostock, Germany

2015 **I School on new computational methods for attosecond molecular processes**
CECAM Zaragoza, Spain

2013 **Course on High Performance Computing (HPC)**
IBM & Universidad Autónoma de Madrid, Spain

awards

2017 **Best PhD Thesis of Madrid in the field of Chemistry**
Spanish Royal Society of Chemistry (Real Sociedad Española de Química)

2017 **Finalist IX SUSCHEM Prize for Young Researchers**
National Association of Spanish Chemists (ANQUE)

teaching

2013–2015 **Computational tools for chemists (bachelor in chemistry)**
Universidad Autónoma de Madrid (Madrid, Spain)

service

2018 **Organiser & chair of QUTIF Young Scientists International Meeting**

2017–Now **Referee for Physical Review Letters and Optics Express journals**

2017–Now **Evaluator for the national research, development and innovation office of Hungary**

qualifications

2018 **Accredited university professor**
Spanish Agency for the Evaluation of Quality and Accreditation (ANECA)

2002 **Certificate of proficiency in English**
Cambridge University, United Kingdom

international conferences

2020 **Invited speaker**
Topological physics in strong light fields: from imaging to controlling topology
High-Intensity Lasers and High-Field Phenomena (HILAS), Prague, Czech Republic

2019 **Invited speaker**
Topological physics in strong light fields: from imaging to controlling topology
Atomic Physics Workshop at the Max Planck Institute for the Physics of Complex Systems, Dresden, Germany

2019 **Invited speaker**
Strong field physics in topological systems
FOPS (Fundamental Optical Processes in Semiconductors), Banff, Canada

2019 **Invited speaker**
Topological strong field physics on sub-laser cycle timescale
ATTO, Szeged, Hungary

2019 **Contributed speaker**
Topological strong field physics on sub-laser cycle timescale
Conference on Lasers and Electro-Optics (CLEO), Munich, Germany

2019 **Contributed speaker**
Topological strong field physics on sub-laser cycle timescale
Conference on Lasers and Electro-Optics (CLEO), California, USA

2019 **Invited speaker**
Strong field topological and valleytronic physics on sub-laser cycle timescale
MURI-MIR (Mid-Infrared Strong-Field Interaction), London, UK

2019 **Contributed speaker**
Topological strong field physics on sub-laser cycle timescale
QUTIF Annual Meeting, Oldenburg, Germany

2019 **Invited speaker**
Topological strong field physics on sub-laser cycle timescale
Physics of Quantum Electronics (PQE), Utah, USA

2018 **Invited speaker**
Topological strong field physics on sub-laser cycle timescale
Super-Intense Laser-Atom Physics (SILAP), Toronto, Canada

2018 **Invited speaker**
Attosecond recorder of the polarisation state of light
IV International Symposium Advances in Nonlinear Photonics, Minsk, Belarus

2018 **Contributed speaker**
Control of attosecond light polarisation
QUTIF International Meeting, Hamburg, Germany

2017 **Contributed speaker**
Attosecond recorder of the polarisation state of light
Conference on Lasers and Electro-Optics (CLEO), Munich, Germany

2016 **Contributed speaker**
Generation and control of elliptically polarised attosecond pulses with bicircular fields
QUTIF Workshop, Dresden, Germany

2016 **Contributed speaker**
The circular ω+2ω scheme: symmetry breaking and ways to control the ellipticity of attosecond bursts
QUTIF Young Researcher's Meeting, Göttingen, Germany

2015 **Contributed speaker**
Time delay anisotropy in the photoemission from the isotropic ground state of helium
(e,2e), double photo-ionization and related topics, San Sebastián, Spain

2015 **Contributed speaker**
Modulation of attosecond beating in resonant two-photon ionization
International Conference on Photonic, Electronic and Atomic Collisions (ICPEAC), Toledo, Spain

2015 **Contributed speaker**
Attosecond two-photon transitions containing autoionizing states
Conference on Lasers and Electro-Optics (CLEO), Munich, Germany

seminar talks

2019 Strong field valleytronics and sub-cycle manipulation of valley population
Stanford University, California, USA

2019 Strong field topological and valleytronic physics on sub-laser cycle timescale
Hannover University, Hannover, Germany

2019 Strong field topological and valleytronic physics on sub-laser cycle timescale
Fritz Haber Institute, Berlin, Germany

2017 Attosecond recorder of the polarisation state of light
Selected topic for Director's Board Meeting, Max Born Institute, Berlin, Germany

2015 Attosecond spectroscopy of autoionizing states
Max Born Institute, Berlin

publications

Google scholar
citations: 499, **h-index: 13**, source: google scholar

19 publications in peer-reviewed journals, including **1 Science** (as first theoretical author), **2 Nature Photonics** (as first author and as first theoretical author), **3 Nature Communications** (one as first author and one as first theoretical author), and **1 Physical Review Letters** (as first author).