

CV (2025)



Name: Platero

Vorname: Gloria

Gender: Female

Place of birth: Ciudad-Real (Spain)

Date of Birth: 09-02-1956

Citizenship: Spain

Permanent address: Department of Theory and Simulation of Materials,
Material Science Institute of Madrid (ICMM), Spanish Research Council (CSIC)
c/ Sor Juana Inés de la Cruz 3, Cantoblanco, Madrid 28049 (Spain)

Phone: 0034913349046

Mobile phone: 00 34 639761920

FAX: 0034913720623

Status: married, one daughter.

e-mail: gplatero@icmm.csic.es

Web-page <https://wp.icmm.csic.es/npqsic/>

Research ID: K-6732-2014

Code Orcid: 0000-0001-8610-0675

Employment record:

2005-present Research Professor at the ICMM-CSIC, Condensed Matter Theory Department
1997-2024 Leader (CSIC) of the consortium between the CSIC and the Applied Mathematics
Department of the Carlos III University (UC3M), Madrid.

1994-1996 Director of the Condensed Matter Theory Department at the ICMM.

1989-1996 Honorary Professor at the Autonomous University of Madrid (UAM).

1990-2005 Scientific Researcher (second level permanent position) at the ICMM (CSIC).

June 1987-1990 Staff Researcher (first level permanent position) at the ICMM (CSIC).

January 1987, Postdoctoral scholarship at the UAM (Spanish Ministry).

1986, MPI Postdoctoral contract at the MPI for High Magnetic Fields, Grenoble, France.

1985 Postdoctoral scholarship from NATO, MPI of High Magnetic Fields, Grenoble, France.

1982-1985 Assistant Professor Autonomous University of Madrid (UAM).

1980-1983 predoctoral scholarship (Spanish Ministry).

1979 Scholarship (Spanish Ministry) for the Bachelor degree Thesis ("Tesina").

Academic Degrees

PhD in Condensed Matter Physics, UAM, "Surface Phonons", "Cum Laude", Advisor: Prof. F. García Moliner, February 1984.

Institutional responsibilities

Leader of the research group at the ICMM: Novel Platform and Nanodevices for Quantum
Simulation and Computation: <https://wp.icmm.csic.es/npqsic/>

CV summary:

General indicators of quality of scientific production:

- Over 200 publications JCR, with over 7400 cites, $h=45$ (GS), several of them in high impact journals as an invited Review in Phys. Reports (with >620 cites), Nature Nanotechnology, PRL (18, 1 “Edd Sugg”, 1 “Featured in Physics”, 1 “Front Page”), Science Advances, PRX Quantum, Quantum, Communication Phys., npj Quantum Materials, PRR, NJP, PRB, APL, Nanotechnology, J. Phys. Mater, Advanced Quantum Technologies, etc...
- More than 40 publications in conference proceedings and book chapters. Editor of two books.
- Co-editor of EPL till March 2023 and Associated Editor in Frontiers in Quantum Science and Technology from 2022.
- Six “Sexenios” (recognition of research merits every six years by the National Commission for the Evaluation of Research Activity, CNEAI).

Distinctions

- Nominated as Member of the Spanish Academy of Science (Medal 64, Sec. Physics and Chemistry) from 26th February 2025
- Awarded with the Emmy Noether distinction EPS (European Physical Society) 2023 <https://www.epsmail.org//w/CIyRGGgYfcOFVp9VhlJSig>
- Vicepresident of the IUPAP from January 2025
- Chair of the C8 Commission of the IUPAP, “International Union of Pure and Applied Physics”, from January 2025
- Secretary of the C8 Commission of the IUPAP, 2021-2024
- Member of the Commission C8 of the IUPAP: “Semiconductor Physics”, 2017- 2021
- Nominated for the presidency of the European Physical Society (EPS) 2018
- Distinction by the CSIC for the scientific merits 2017-2018
- Awarded with a Mercator Fellow position at the CRC 1277: “Emergent Relativistic Effects in Condensed Matter, From Fundamental Aspects to Electronic Functionality”, Regensburg U. (2017-2021)
- Fellow of the APS (American Physical Society) for QI (Quantum Information Division)
- Outstanding Referee APS
- Elected member of the Scientific Council of the Foundation Gadea Ciencia

Selected Invited Talks in Conferences

More than 100 invited talks in conferences and workshops, and more than 60 invited seminars in national and international research centers, among others:

- ICPS conference (Austin 2014; Montpellier 2018), the key conference on semiconductor physics
- ICSNN conference (Hong Kong, 2016), also a key conference in the field on semiconductor nanostructures and nanodevices.
- Fall Conference of the Brasil Physical Society, (Iguazú, Brasil 2018)
- DPG Spring Meeting in Condensed Matter, (Dresden 2023)
- EDISON 22nd Conference, (Münster 2023)
- MRS Fall meeting in (Varsovia, 2023).
- Plenary talks at the XXIII, the XXIV and the XXVII Conferences of Statistical Mechanics (Sitges, 2012, 2014, 2023)

- Outreach Lecture at the Open Doors of the University of Ottawa: Frontiers in Research Lectures: Nano- from small beginnings to a great future: "Nanodevices for Spintronics", (Ottawa, Canada, 2003)
- Outreach Lecture at the emblematic "Residencia de Estudiantes" (CSIC): Ágora para la Ciencia: "Artificial Atoms and Molecules for Quantum Information" (Madrid 2013)

10 selected representative publications

- 1-Photon-assisted Transport in Semiconductor nanostructures, G. Platero and R. Aguado, Phys. Rep. 395, 1-157 (2004)
- 2- Floquet-Bloch theory and topology in periodically driven lattices, A. Gómez-León and G. Platero, Phys. Rev. Lett., 110, 200403 (2013)
- 3-Merging of Dirac points and Floquet topological transitions in ac-driven graphene, P Delplace, Á Gómez-León, G Platero, Phys. Rev. B 88 (24), 245422 (2013)
- 4-Bipolar spin blockade and coherent state superpositions in a triple quantum dot, M. Busl, G. Granger, L. Gaudreau, R. Sánchez, A. Kam, M. Pioro-Ladrière, S. A. Studenikin, P. Zawadzki, Z. R. Wasilewski, A. S. Sachrajda and G. Platero, Nature Nanotech., 8, 262 (2013)
- 5-Signatures of a 4π -periodic supercurrent in the voltage response of capacitively shunted topological Josephson junctions J. Picó-Cortés, F. Domínguez, and G. Platero, Phys. Rev. B, 96, 125438 (2017)
- 6-Unconventional quantum optics in topological waveguide QED, M. Bello, G. Platero, I. Cirac and A. González-Tudela, Science Advances, **5**, 7, eaaw0297 26 July (2019)
- 7-Simulation of chiral topological phases in driven quantum dot arrays, B. Pérez-González, M. Bello, G. Platero, A. Gómez-León, (front page cover) Phys. Rev. Lett., 123, 126401 (2019)
- 8- Interplay between long-range hopping and disorder in topological systems, B. Pérez-González, M. Bello, A. Gómez León and G. Platero, Phys. Rev. B, 99, 035146 (2019)
- 9- Topology and Interactions in the Photonic Creutz and Creutz-Hubbard Ladders, J. Zurita, C.E. Creffield and G. Platero, Adv. Quantum Tech., 3, 1900105 (2020)
- 10-Fast quantum Transfer mediated by topological domain walls, J Zurita, CE Creffield, G Platero, Quantum 7, 1043(2023).

Teaching activities

- Honorary Professor at the UAM (1989-1996).
- Professor at the excellence Doctorate Program on engineering and mathematics at the Carlos III University (1994-98).
- Participation in the Master of Theoretical Physics (Quantum Information), UCM (present)
- Participation in the Master program on Nanoscience and Biological systems, UAM (present)
- Participation in the Master program on Quantum Technologies at UIMP-CSIC (present)
- Participation in the Master program on Quantum Technologies and Engineering at UC3M (present)
- Participation in the PhD Physics programs at the UCM and at the UAM (present)

Mentoring

I have advised 15 PhD students (14 “Cum Laude”, 1 from Ensenada University (Mexico) with the highest qualification of “Sobresaliente”, two PhD thesis more in progress), eleven of them are successfully working in academia, seven of them permanent at different universities in Spain (UC3M, UAM, UIB (two Full Professors)), Germany (one Professor), or at CSIC (One Senior Permanent Scientist, one Permanent Scientist). Four of them are postdoctoral researchers (UAM, Würzburg U., Regensburg U., Augsburg U.) (See details in the extended cv)

Awardees:

- David Sánchez awarded by the UAM (Autonomous U. Madrid) to the best PhD work 2002, Full Professor at the UIB (Balearic Island U.)
- Maria Busl awarded by the GEFES (Condensed Matter Division of the Spanish Physical Society) for the best PhD work 2012
- Mónica Benito, awarded with the Emmy Noether Junior Research Group Leader Fellowship (DFG) (2022) and Professor in Augsburg.
- Beatriz Pérez-González, CSIC Award for the dissemination of her PhD within the program: “Yo Investigo” (“I do research”) 2023. Postdoctoral in Augsburg U.

I have advised several Postdoctoral researchers, Master and Degree works, undergraduate students under different programs as “Prácticas de Universidad” for introduction to research, JAE Intro program of the CSIC, Rise program (DAAD), etc...

Participation in Research Projects and Grants

Participation in several national and international projects as Marie Curie Research Training Networks (RTN), Training and Mobility of Researchers (TMR) networks, (ITN) Marie Curie networks, Costs actions and Collaborative Bilateral Projects: CSIC-DAAD (Germany), CSIC-CNRS (France), CSIC-CNR (Italy), CSIC-CNPq (Brasil), CSIC-Austria, CSIC-Taiwan. Principal Investigator of 25 of them.

Participation in the program, organizing or steering committee of conferences and workshops

Participation in the program, steering and/or organizing committee of around 40 international conferences and workshops. Among them:

- Chairwoman of the International Conference of Superlattices, Nanodevices and Nanostructures, ICSNN 2018, satellite of the ICPS and supported by the IUPAP, Madrid, July 2018.
- Co-organizer of the Silicon Quantum Electronics Workshop, San Sebastian, October, 2019.
- Co-chair of the international conference: SPIN QTECH, Pontresina, September, 2022.
- Co-organizer of the mini-colloquia on “Fundamental Bounds in nano-engines”, at the CMD30 (EPS), FisMAT 2023, Milan
- I will be Chairwoman of the ICPS (International Conference on Semiconductor Physics), the flagship conference of the IUPAP, C8 (Semiconductors) Madrid, 2028.

Selected community services (last 10 years)

- Member of the Fundamental physics of matter and light and quantum information science review panel, Academy of Finland, 2023/2024

- Reviewer for a full professor position in Chalmers University of Technology (Sweden), 2024
- Member of the panel for the Tyndall QCEC (Quantum Computer Engineering Center) Director position, 2023
- Member of the panels for Mock interviews for ERC (FECYT), Starting (2022) and Synergy grants (2023)
- Member of a panel to elaborate the “Gender Equality Plan” for the Spanish Physical Society, 2022
- Referee of the Program: “Talent” del NWO (Dutch Research Council) 2022
- Member of the Review Panel of the National Centre of Excellence NCCR SPIN (Basel University) Swiss National Science Foundation (SNSF), 2021 till present
- External referee for ERC Consolidator and Starting grants 2021, 2022
- Member of the evaluation panel for a permanent position in Basel U., 2020
- Referee for positions for the City University Hong Kong, 2019
- Member of the evaluation panel of ERC Starting grants (P3), 2018-2019
- Member of the panel for Helmholtz Young Investigators Group Grants (DFG) 2017
- Member of the international scientific committee for research grants for Hong Kong universities for Science, Engineering and technology: 2016-2018
- Panel member for evaluating an Excellence Center in Copenhagen, DK (Danish National Research foundation), 2016
- Panel member for evaluating a Collaborative Research Center in Germany (DFG): “Scalability of Quantum Information Processing”, Aachen 2015
- Member of the expert panel (Physics) for the Research Foundation of Flanders, FWO, 2012-2014

Research Interests

Light-Matter interaction, and in particular AC-driven transport and Floquet systems has been one of my main topics of research during my carrier. I was invited by the Editor to write a review on “Photo-assisted Transport in Nanostructures” in Physics Reports which had a large impact (>620 cites, GS).

A recognition to my scientific contributions to Floquet systems was the receiving of The Emmy Noether Distinction 2023 EPS:

"in recognition of her remarkable contributions to the theoretical understanding of out-of-equilibrium (Floquet) systems and their impactful application to quantum materials, for her excellent mentorship of young researchers and for tirelessly fostering female talent in physics."

My research has been also focused on the theoretical analysis of spin qubits in quantum dot arrays, their manipulation and the analysis of different protocols for quantum state transfer. Recognition to my work in this topic was the nomination as APS Fellow in the Quantum Information Division (2022):

“For key theoretical physics contributions to the development of novel quantum circuit functionalities and protocols required to implement quantum information applications in real systems.”

Also, other active research line is the analysis of the topological properties of low dimensional systems, in particular ac driven (Floquet) systems. I investigate the interplay between the topology and driving and proposed a theory for periodic systems both in space and time: “Floquet-Bloch theory and topology in periodically driven lattices”, A. Gómez-León and G. Platero, PRL, 110, 200403 (2013), > 440 cites (GS).

I am also interested in the role of edge states with topological origin, for the transfer of quantum information and the effect of topological domain walls (Quantum, 7, 1043, 2023; Quantum, 9, 1625, 2025)

One topic of my interest are hybrid semiconductor/superconductor materials, as semiconductor quantum dots coupled to superconducting contacts, where I have investigated the interplay between Kondo physics and superconductivity (PRL,129, 207701, 2022, SCPMA,67, 280362, 2024).

I also investigate light-matter interaction in hybrid systems: quantum cavities coupled to lattices with nontrivial topology as sensors of the topological properties (Phys. Chem. Chem. Phys., 24, 15860, 2022), as well as the quantum origin of anomalous Floquet phases (Comm. Phys.,7, 419, 2024) and the role of light-matter correlations in cavity-QED materials (Quantum, 9, 1633, 2025). Also, the coupling of quantum cavities to spin qubits for the transfer of quantum information is a topic of my research interest.

These topics belong to the recent research area of Quantum Nanotechnologies, in particular Quantum Information, Simulation and Computation.

Extended CV, Professor Gloria Platero

Research Trajectory

I received the PhD degree at the UAM (Universidad Autónoma de Madrid) in 1984 under the supervision of Prof. F. García-Moliner. My research during the PhD was devoted to the theoretical analysis of surface phonons and scattering of atoms in surfaces. During this period, I also did a research stay at the Milan University to collaborate with Prof. G. Benedek. After this, I obtained a NATO fellowship, and afterwards I got a contract at the MPI High Magnetic Field Laboratory in Grenoble, where I spent about two years as postdoctoral researcher. There, I collaborated with Prof. M. Altarelli, on the electronic and optical properties of semiconductor quantum wells and superlattices under strain and external magnetic fields. After that, I obtained a postdoctoral fellowship at the UAM, where I began to work in quantum transport in semiconductor heterostructures under magnetic and ac electric fields. I became Honorary Professor for eight years at the UAM, and I got a permanent position in 1987 at the Spanish Research Council, CSIC. From this time till now, I was promoted to Senior Researcher and then to Research Professor in 2005. I was also Leader (CSIC) of the consortium (“Unidad Asociada”) CSIC-Applied Mathematics, Carlos III U. of Madrid till 2024.

Research Topics

One of my main research topics has been AC-driven quantum transport in nanostructures, I was invited by the editor to write a review on Photon-assisted transport in nanostructures (Phys. Rep., 395, 1-157, 2004, >620 cites GS).

Within this topic, all along my career, I have analyzed different AC-driven systems, from Hall bars where we have proposed a theoretical framework to explain the origin of the observed radiation-induced zero-resistance states in a Hall bar (Phys. Rev. Lett., 94, 016806, 2005), to ac driven double quantum dots (PRL, 94, 107202, 2005), or two dimensional materials, as graphene and other lattices with non-trivial topology (Phys. Rev. B, 85, 155449, 2012; Phys. Rev. B, 88, 245422, 2013; Phys. Rev. B, 89, 205408, 2014; Phys. Rev. B 100, 075412, 2019; New J. of Phys., 23, 023008, 2021). For that purpose, we have developed a theoretical framework for the analysis of periodic Hamiltonians both in space and time (Floquet-Bloch Theory, PRL, 110, 200403, 2013, with more than 440 cites GS).

In parallel, my research has been focused on the theoretical analysis of charge and spin quantum transport in semiconductor nanostructures, in particular in quantum dots.

My first works in this topic dealt with quantum electron transport in quantum dots in the strong interacting regime, i.e., in the Kondo regime (PRL, 81, 4688, 1998; PRL, 89, 136802, 2002). Later on, I devoted my effort to analyse spin qubits in quantum dots, their manipulation (Phys. Rev. B, Rapid Comm., 81, 121306, 2010; Phys. Rev. B, Rapid Comm., 87, 081305, 2013) and how to transfer quantum information in quantum dot arrays (Nature, Nanotech., 8, 262, 2013; PRL 112, 176803, 2014).

In these systems, in the presence of AC-driving, I have recently investigated different interesting problems, as how to reduce charge noise in a double quantum dot, a serious issue for quantum computation, by inducing dynamically sweet-spots (Quantum, 5, 607, 2021) or how to prepare a quantum state and transfer it between distant dots in a quantum dot array, by ac

driving (Phys. Rev. B, 99,155421, 2019). Other example is the analysis of electron dipole spin resonance in double quantum dots in the presence of spin orbit interaction (J. Phys. Mater. 6, 034004, 2023).

Recently I have investigated pulse protocols both adiabatically (CTAP) and by shortcuts to adiabaticity techniques (STA), to manipulate electron spin qubits and to transfer quantum information in quantum dot arrays (Nanotech., 29, 505201, 2018; Adv. Quantum Tech., 2, 1900048, 2019). I am now extending these works to hole spin qubits, which benefits, in comparison with electron spin qubits, from their weaker interaction with nuclear spins and therefore from their long spin decoherence time (Phys. Rev. Appl., 8, 054090, 2022; Quantum 8, 1533, 2024).

The impressive development of quantum dot networks fabrication and control, has motivated to propose them as quantum simulators of lattices with non-trivial topology as a dimer chain, a one-dimensional topological insulator modeled by the SSH Hamiltonian. Recently, I have investigated how to simulate, in a semiconductor quantum dot array, an extended SSH model, including long range hopping, by means of Floquet engineering (PRL, 123, 126401, 2019).

In fact, one of my active research lines in the last years is the theoretical analysis of the topological properties of low dimensional systems, both fermionic and bosonic in driving fields. I have investigated the interplay between the topology and driving as well as the effect of interaction on the particle dynamics (Sci. Rep., 6, 22562, 2016; Phys. Rev. B, 93,115432, 2016; Nanotech., 27, 454002, 2016; Phys. Rev. 95, 094303, 2017; Adv. Quantum Tech., 3, 1900105, 2019, Quantum, 5, 591, 2021; Phys. Rev. Applied, 21, 034033, 2024), or the role of topological domain walls for the transfer of quantum information (Quantum 7,1043, 2023; Quantum, 9, 1625, 2025).

One promising area of research in which I am interested, deals with the relationship between topology and nonlinearity. I have investigated different physical systems as non-linear superconducting circuits with non-trivial topology (Phys. Rev. Lett., 118, 197702, 2017), AC-driven bosonic systems, which present instabilities of topological origin (Phys. Rev. Lett., 117, 045302, 2016), as well as topological synchronization of quantum van der Pol oscillators simulating different topological lattices (Phys. Rev. Res.,5, 023021, 2023).

Another topic of my research, with implication in topological quantum computation deals with the detection of Majorana fermions (MF) in Josephson junctions through its effect on the current-phase relation in the AC Josephson effect (Phys. Rev. B, 86, 140503(RC), 2012; Phys. Rev. B, 95, 195430, 2017; Phys. Rev. B, 96,125438, 2017, Phys. Rev. Res., 4, 013087, 2022).

Recently, many concepts of topology in topological materials have been exported to Photonics. I have recently collaborated with the IFF, CSIC (A. González-Tudela) and MPI, Garching (I. Cirac), in topological photonics, where exotic quantum optical phenomena occur when quantum emitters interact with a topological waveguide quantum electrodynamics bath (Science Adv., vol 5, 7, eaaw0297, 2019). Recently, an extensive analysis of numerous many-body phases reachable in a waveguide QED quantum simulator has been performed (PRX Quantum, 3, 010336, 2022).

Hybrid systems, as those consisting on quantum cavities coupled to fermionic systems, is a recent topic of my research. We investigate the cavity as a quantum sensor of the topological properties of a fermionic system (Phys. Chem. Chem. Phys., 24, 15860, 2022) as well as the

quantum origin of anomalous Floquet phases in cavity QED materials (Comm. Phys., 7, 419, 2024), and the light-matter correlations in quantum Floquet engineering (Quantum, 9, 1633, 2025).

Also, I investigate other hybrid systems formed by semiconductor quantum dots coupled to superconducting contacts. I have investigated, together with my coworkers, the interplay between Kondo physics and superconductivity (PRL, 129, 207701, 2022, Ed. Sugg.; SCPMA, 67, 280362, 2024).

Collaborations

I have established several collaborations with different research groups during my career.

I would like to stand out some of them, in particular, my collaboration with Prof. Tobias Brandes (TUB) for several years in different topics. We had a regular and fruitful collaboration together which gave rise to several publications (see publication list) and exchange of students and visits.

I collaborated with Prof. A. Sachrajda, NRC (Ottawa), expert in spin qubits in QD arrays (Nature Nanotech., 8, 262, 2013; PRL, 112, 176803, 2014), with Prof. A.P. Jauho, expert on non-equilibrium transport properties of nanostructures, on ac-driven graphene (PRB, 85, 155449, 2012), with Prof. P. Hänggi, world-wide recognized for his contributions to non-equilibrium and Floquet systems (PRB, 77, 035409, 2008), with Prof. A. MacDonald, a well-known theoretician in Condensed Matter Physics, on spintronics in superlattices and hyperfine interaction in quantum dots (Phys. Rev. B, 65, 035301, 2002, Phys. Rev. B, 67, 045324, 2003, Phys. Rev. B, 76, 085329, 2007) or with Prof. R. Haug, a leader of an experimental group working on quantum dots (Phys. Rev. B, 94, 035442, 2016), with whom we are now writing a paper on long-range transport in quantum dot arrays. Recently, I had collaborations at the Regensburg University, where I was Mercator Fellow, with Prof. M. Grifoni and Prof. D. Weiss on Majorana Fermions in topological nanowires (PRR, 4, 013087, 2022) and with Prof. M. Grifoni, Prof. A. Donarini, and Dr. J. Picó-Cortés in Regensburg U., on the transport through hybrid systems: superconductors coupled to semiconductor quantum dots (PRB, 110, 125418, 2024). I have recently collaborated as well with Dr. A. González-Tudela (IFF-CSIC) and Prof. I. Cirac at the MPI of Quantum Optics in Garching (Germany) in photonic topological systems, as mentioned above (Science Adv., vol 5, 7, eaaw0297, 2019, PRX Quantum, 3, 010336, 2022), with Prof. H. Xu (Lund and Beijing U.), Prof. R. López and Prof. M. Lee, in Kondo Physics in quantum dots coupled to superconducting contacts (PRL, 129, 207701, 2022, Ed. Sugg., SCPMA, 67, No 8, 280362, 2024), as well as with Prof. J. Cao (MIT) and Dr. G. Engelhart (Beijing U.) in driven spin-boson systems (PRL, 123, 120602, 2019). With Dr. Engelhardt and coworkers we have recently worked in Floquet theory in open systems (Phys Rev. A, 110, 063707, 2024) and with Dr. C. Wächter (Berkeley U.) on Synchronization and topology in quantum systems (PRR, 5, 023021, 2023), he has joined our group in Madrid with a Marie Curie Grant, and we plan to continue our collaboration in this topic.

In Spain I collaborate with Dr. S. Kohler in ac driven transport in dissipative systems (ICMM), Prof. F. Domínguez-Adame (UCM) and Dr. R. Molina (IFF, CSIC) in ac driven topological insulators, Dr. C. E. Creffield in low dimensional lattices with non-trivial topology (UCM), with Dr. M. Bello (IFIMAC, UAM) in Topological photonics, with Dr. R. López in quantum transport of strongly correlated electrons in quantum dots (UIB), and with Dr. Y. Ban and Prof. X. Chen (ICMM), in shortcuts to adiabaticity techniques (STA) for qubits manipulation and quantum state transfer.

My research topics of interest belong to the Condensed Matter Theory and to the Quantum Computation, Information and Quantum Simulation areas in the field of Quantum Nanotechnologies.

Invited stays and visits in research centers

I was invited to visit and do research stays in different laboratories as Milan U. (Prof. Benedek), MPI Grenoble (Prof. Altarelli), SISSA, Trieste (Prof. Fasolino), UNAM, Ensenada (Prof. Cota), Institute of Molecular Physics, Poland (Prof. Bulka), PTB in Braunschweig and Hamburg U. (Prof. Kramer), Leoben U. (Prof. Kuchar), MPI, Condensed Matter, Stuttgart (Prof. von Klitzing), MPI Quantum Optics, Garching (Prof. Cirac), UTB Berlin (Prof. Brandes), Aalto U. Helsinki (Prof. Jauho), Geneva U. (Prof. M. Buttiker), NRC, Ottawa (Prof. Sachrajda), UBC, Vancouver (Prof. Stamp), Regensburg U. (Prof. Richter), Augsburg U. (Prof. Hanggi), Leibniz U. Hannover (Prof. R. Haug), Utrecht U. (Prof. C. De Morais Smith), Imperial College London (Dr. M. Connolly), Surrey U. (Dr. E. Guinossar), ISTA (Viena) (Dr. Katsaros) among others. I was invited to the Kavli Institute for Theoretical Physics (Santa Barbara, USA), to attend the program “Spin and Heat Transport in Quantum and Topological Materials”, October 21/ December, 2019 (declined because it overlapped with an invitation to a conference in Shanghai) and to attend the program: “Energy and Information Transport in Non-equilibrium Quantum Systems”, (August/September, 2021) where I participated on-line.

Teaching activities, mentoring

- I was Honorary Professor at the UAM (1989-1996).
- I was Professor at the excellence doctorate program on Engineering and Mathematics at the Carlos III University (1994-98).
- I participate in the Theoretical Physics Master (Quantum Information) (UCM).
- I participate in the Master program on Nanoscience and Biological Systems (UAM).
- I participate in the Master on Quantum Technologies at UIMP-CSIC.
- I participate in the Master on Quantum Technologies and Engineering (UC3M)
- I participate in the doctorate programs at the UCM and at the UAM.

I have supervised 15 PhD students (10 male and 5 female PhD students, 2 more in progress), 11 of them work successfully in Academia: 7 with permanent positions at different universities and at the CSIC, and 4 with postdoc positions.

- 1- Jesús Iñarrea: “Photo-assisted Transport in Semiconductor Heterostructures”, “Apto cum Laude”, Autonomous University of Madrid (UAM), June 1995.
Associate Professor at the Carlos III University of Madrid.
- 2- Ramón Aguado: “Transport Phenomena in Confined Semiconductor Nanostructures”, Apto cum Laude, Carlos III University of Madrid, January 1998.
Senior Scientist at the Materials Science Institute of Madrid (ICMM-CSIC).
- 3- Rosa López: “Electronic Structure and Transport in Quantum Dots: Kondo effect under AC Potentials”, Sobresaliente cum Laude, UAM, April 2002.
Full Professor at the UIB (Balearic Islands University)
- 4- David Sánchez: “Nonlinear Dynamics and Spin-related Properties of Semiconductor Nanodevices”, Sobresaliente Cum Laude, UAM, April, 2002.
PhD Award to the best PhD at the Autonomous University of Madrid 2002.

Full Professor at the UIB (Balearic Islands University).

- 5- Rafael Sánchez: "Quantum Coherence and Dissipation in Quantum Dots", Sobresaliente Cum Laude, UAM, 4th February 2008.
Associate Professor at the UAM.
- 6- Carlos López-Monís: " Spin dependent electron transport through single and double quantum dots". Sobresaliente cum Laude, UAM, 14th November, 2011.
Mathematics and Physics Teacher in public High School
- 7- Irene Maldonado: "nano-electro-mechanical systems under the action of oscillating electric fields", co-advised with Prof. E. Cota, Sobresaliente, UNAM (Ensenada, Mexico), December 2011
- 8- Maria Busl: " Nanoscopic Systems Driven by Magnetic and Electric AC Fields", Sobresaliente cum Laude, UAM, June 2012.
Awarded from the Condensed Matter Division of the Spanish Physical Society for the best theoretical PhD work.
María had a clear vocation for teaching. She is Mathematics and Physics Teacher at High School at the German School in Madrid.
- 9- Fernando Domínguez: "Decoherence phenomena in quantum dot arrays and fractional Josephson effect", Sobresaliente cum Laude, UAM, November 2012.
He has a postdoctoral position at the Molenkamp's Laboratory in Würzburg.
- 10- Álvaro Gómez: " Quantum Coherence in Semiconductor Qubits". Sobresaliente cum Laude, Universidad Complutense de Madrid (UCM) 16 January 2014.
"Científico Titular" (Permanent Researcher) at the Fundamental Physics Institute, IFF (CSIC).
- 11- Mónica Benito: "Floquet and dissipative engineering in mesoscopic systems", Sobresaliente cum Laude, UAM, April 2017.
Awarded with the Emmy Noether Junior Research Group Leader Fellowship (DFG). She is Associated Professor (permanent) at the University of Augsburg.
- 12- Fernando Gallego: " Electronic, Heat and Ultra Cold Atoms Transport in Quantum Dot Systems", Sobresaliente cum Laude, UCM, April 2017.
He works in a Spanish Bank (BBVA), in the Department of Risks, he has a high responsibility position.
- 13- Miguel Bello: "Interplay between topology and driving in periodic lattices", Sobresaliente cum Laude, UAM, January 2020.
Postdoctoral researcher at the IFIMAC (UAM).
- 14- Jordi Picó: "AC Dynamics of Quantum Dots and Josephson Junctions for Quantum Technologies", UAM, Sob. cum Laude, 13 December 2021.
Postdoctoral Researcher at the U. Regensburg (Prof. M. Grifoni).
- 15- Beatriz Pérez González: "Topological Systems Interacting with Classical and Quantum Light". UCM, Sob. Cum Laude, March 2023.
Postdoctoral Researcher at the Augsburg U (with Prof. Mónica Benito).

Awarded by the CSIC for the dissemination of her PhD through the program: “Yo Investigo” (“I do Research”), 2023.

On-going PhDs:

- 1- Juan A. Zurita (awarded with a FPU grant from the Spanish Ministry): “Topology and Interaction in quasi one-dimensional lattices for the transfer of information”, defense expected in June 2025.
- 2- David Fernández (awarded with a FPU grant from the Spanish Ministry): “Hole Quantum Bits in Quantum Dot arrays “, defense expected in December 2025.

I have supervised 13 postdoctoral researchers, 10 degree and 13 master works as well as 14 undergraduate students (“Research Practices” for introduction to research at the UAM and UCM), 4 RISE (DAAD) undergraduate German students hosted in my group in Madrid and 7 JAE Intro (CSIC program for Introduction to Research) students. I have also host PhD students from Germany through my long-standing collaboration with Prof. Brandes (UTB), as Sina Böhlig, Vanessa Junk (from Prof. K. Richter group, Regensburg U.) or Monika Kotzian (PhD student from the group of R. Haug, Leipzig U. Hannover).

I have also host in my group high school students for a couple of days within a program of the Community of Madrid, to promote the motivation, in particular for girls, who are yet a minority in STEM carriers, to become a researcher.

Distinctions

- Nominated as Member of the Spanish Academy of Science (Medal 64, Sec. Physics and Chemistry) from 26th February 2025
- Awarded with the Emmy Noether distinction EPS (European Physical Society) 2023 <https://www.epsmail.org/w/CIyRGGgYfcOFVp9VhJJSig>
- Vicepresident of the IUPAP, from January 2025
- Chair of the C8 Commission of the IUPAP, “International Union of Pure and Applied Physics”, from January 2025
- Secretary of the C8 Commission of the IUPAP from 2021 till 2024
- Member of the Commission C8 of the IUPAP: “Semiconductor Physics”, from 2017 till 2021
- Nominated for the presidency of the European Physical Society (EPS) 2018
- Distinction by the CSIC for the scientific merits 2017-2018
- Awarded with a Mercator Fellow position at the CRC 1277: “Emergent Relativistic Effects in Condensed Matter, From Fundamental Aspects to Electronic Functionality”, Regensburg U. (2017-2021)
- Fellow of the APS (American Physical Society) for QI (Quantum Information Division)
- Outstanding Referee APS
- Elected member of the Scientific Council of the Foundation Gadea Ciencia

Community services

Panel member in Expert Committees abroad:

- Referee of research projects for NWO (Dutch Phys. Society) October 2024
- Referee to evaluate a full professor position at Chalmers University of Technology in Gothenburg, Sweden. May 2024
- Member of the Fundamental physics of matter and light and quantum information science review panel, Academy of Finland, 2023/2024

- Member of the panel for the Tyndall QCEC (Quantum Computer Engineering Center) Director position, 2023
- Member of the Review Panel of the National Centre of Excellence NCCR SPIN (Basel University) (Swiss National Science Foundation (SNSF), 2021 till present.
- Member of the evaluation panel for a permanent position in Basel U., 2020.
- Member of the evaluation panel of ERC Starting grants (P3), 2018-2019.
- External referee for ERC Consolidator and Starting grants 2021, 2022
- Referee for positions for the City University Hong Kong, 2019.
- Member of the panel for Helmholtz Young Investigators Group Grants (DFG) 2017.
- Member of the international scientific committee for research grants for Hong Kong universities for Science, Engineering and technology: 2016-2018.
- Panel member for evaluating an Excellence Center in Copenhagen, DK (Danish National Research foundation), 2016.
- Panel member for evaluating a Collaborative Research Center in Germany (DFG): “Scalability of Quantum Information Processing”, Aachen, 2015.
- Member of the expert panel (Physics) for the Research Foundation of Flanders, FWO, 2012-2014.
- Member of a panel for evaluating a Collaborative Research Center in Germany (DFG), Bonn 2011.
- Member of an evaluation panel of the European Science Foundation (ESF): 2009-2010.
- Regular referee of research agencies: NSF, National Science Foundation (USA), CNRS (France), DFG (Germany), NSERC (Canada), FONDECYT (Chile), CONICET (Argentina), NCN (Poland), PRACE (EU center of Super-computation), FWO (Flandes) etc...

Committees in Spain:

- President of the panel for permanent positions at CSIC, 2025
- Member of the panel for the BBVA-RSEF awards: Medal for a senior researcher and award for young researchers 1) Theory and 2) Experimental. 2024
- President of the panel for a permanent position at CSIC, 2024
- Member of the panel for evaluating research groups at the UAM on Experimental Sciences. 2021-present.
- Member of the panel for PhD awards at UIB (University of the Balearic Islands) 2024
- Member of the electoral panel of the Spanish Physical Society, RSEF 2024
- Collaborator (FECYT) to participate as expert in previous essay interviews for ERC (Starting and Synergy) projects, 2022, 2023.
- President of the panel for a senior permanent position on Quantum Computation (CSIC). 2023
- Member of the Panel to elaborate the Gender Equality Plan for the Spanish Physical Society, 2022
- Member of the Evaluation Panel for National Grants in the area of Physics, 2022.
- Member of the PEJ (“Plan de Empleo Juvenil”) “Youngs Employment Plan”, CAM, 2022
- Member of the evaluation panel for the National Grants for Material Science, 2021.
- Member of the committee for the “Serra Hunter Program”, for a permanent position at Barcelona U., 2020
- Member of the ANEP (Spanish National Agency for Evaluation and Prospective): Responsible for Condensed Matter Physics, from December, 2013-2018.
- Referee of ICREA, 2018
- Member of the referee committee of the program of “Young’s Employment Plan”, Ministry of Science and Innovation, 2018.
- Referee of the program: “Junior leader”, La Caixa, 2017.

- Member of the panel for selecting candidates to participate in the Lindau meeting Nobel awarders (Physics, Chemistry and Medicine), 2014.
- Member of the Materials Science Committee CSIC, 2008 -22011.
- Member of the commission of experts for the monitoring of projects in the Physics area SISE (FECYT), 2008.
- Advisor to the Andalusian Agency for Quality Assessment and Accreditation, (area of Physics, Chemistry and Mathematics), 2006-2009.
- Member of the Advisory Committee of the National Commission for the Evaluation of Research Activity (CNEAI) ("Sexenios") 2006-2008.
- Member of the Evaluation Committee of the VI University Contest: "Arquímedes", of introduction to Scientific Research (MEC) 2007.
- Moderator of the session for the evaluation of projects of the National Plan of Materials Science (MEC), Barcelona, 2006.
- Regular Collaborator of the AEI (State Research Agency, Spain), for evaluating National grants in Physics and Material Science, Postdoctoral contracts as RyC, JdIC, etc..., and grants of the Community of Madrid (CAM).

Other Referee duties

- Member of committees for several PhD defenses in different Universities in Spain, Germany (Hamburg U., Technical U. Berlin, U. Hannover), Denmark (Technical U. of Denmark), Ensenada (UNAM Mexico), Grenoble (U. Grenoble Alpes), Sweden (Uppsala U.), NL (Utrecht U., Delft U.), Norway (Trondheim, first Opponent), etc... (>20 in the last 10 years)
- Member of committees for full Professor and permanent positions in Spain, Finland, Germany, Ireland, Austria, Sweden and Switzerland.
- Referee of around 30 Scientific journals, among them: Nature Physics, Nature Communications, Nature Photonics, Nature Nanotechnology, NPJ Quantum Information, Nanoletters, Physical Review Letters, Physical Review X, Applied Physics Letters, New Journal of Physics, Reports of Progress in Physics, Nanotechnology, etc...

Research projects

- 1979/81 National Project (Spanish Ministry, Ref. F/3118/79): "Dynamical and Thermodynamic properties of Surfaces", PI (Principal Investigator): Dr. F. García Moliner.
- 1982 Joint Collaborative Project CSIC-CNR, Italy, "Interface Phonons and Atomic Dispersion in Metallic Surfaces", PIs: F. García Moliner and G. Benedek.
- 1983 Research Project, funding agency: CSIC: "Surface Excitations", PI: F. García Moliner.
- 1984/85 Research Project funded by the Research Office of the USA Army: "Metal to ultrasmall Semiconductors Structures", PI: F. Flores (Ref. DAJA 45-84-M-0378)
- 1984/85 Joint Collaborative Project CSIC-CNRS (France), " Electronic Properties of semiconductor heterojunctions and Superlattices", PIs: F. Flores and M. Lannoo (Lille University).
- 1985/87 Research Project (CAICYT, Spanish Ministry), "Properties of Semiconductor Surfaces and Interfaces", PI: F. Flores.
- 1988/89 Joint Collaborative Project CSIC-CNRS (France), "Electronic Properties of Superlattices and Quantum Wells under External Fields", (ESRF, European Synchrotron Radiation Facility), PIs: **G. Platero** and M. Altarelli.

- 1988/89 Joint Collaborative Project CSIC-CNPq (Brasil), "Analysis of the electronic properties of superlattices and amorphous semiconductors", PIs: C. Tejedor and L.E. Oliveira.
- 1989/1991 Coordinate Research Project, National Plan of New Materials (Spanish Ministry), MAT88-0116-c02-02: "Electronic and Transport Properties of Quantum Wells and Superlattices under external Fields", PI: **G. Platero** (CSIC).
- 1992/1994 Coordinate Research Project (CYCYT, Spanish Ministry) "Preparation and analysis of the electronic properties of Low Dimension Semiconductor Structures". PI: J.M. Calleja (UAM).
- 1991/1993 EU Project SCC-CT90-0020, "Localization and Transport Fluctuations in Microstructures", PI: B. Kramer (Hamburg U.).
- 1992/1994 SPRIT Project (EU), "Semiconductor Nanostructures", PIs: J.M. Calleja and Prof. Forchel.
- 1993/95 Joint Collaborative Project (CSIC-DAAD): "Time dependent transport in low dimensional heterostructures", PIs: **G. Platero** (CSIC) and B. Kramer (Hamburg U.).
- 1993/96 EC Human Capital and Mobility, ERBCHRXCT930413: "Nonlinear space-temporal structures in semiconductors, fluids and oscillator ensembles", PI: L. Bonilla (Carlos III University of Madrid).
- 1994/1997 National Research Project (CICYT, Spanish Ministry), MAT-94-0982-c02-02: "Nanostructures in Semiconductors and Superconductors", PI: **G. Platero**.
- 1995 Joint Collaborative Project Spain-Austria (Leoben U.). "Integer and Fractional Quantum Hall effect: Effect of microwave radiation", PIs: **G. Platero** and F. Kuchar.
- 1995 Research Project Funding, AE00088/95, Madrid Community (CAM), PI: **G. Platero**.
- 1996/1999 European Network TMR: "Phase Coherent Dynamics of Hybrid Nanostructures", PI: Prof. Colin Lambert (Lancaster U., UK).
- 1997/2002 National Research Project (Spanish Ministry, CICYT, PGC: PB96-0875): "Materials and Devices of Strongly Correlated Systems"; PI: F. Guinea.
- 1998/2003 European Research Network TMR: FMRX-CT98-0180: "Quantum Electron transport in the Frequency and time Domains", **PIs:** B. Kramer (Hamburg U.) and **G. Platero** (Spanish Node).
- 1998 Research Project of the Community of Madrid (CAM) 07N/0026/1998. "Non-Linear Effects in low dimensional semiconductor heterostructures", PI: J. M. Calleja (UAM).
- 2000/2004, RTN (Research Training Network), Contract: HPRN-CT-2000-00144: "Nanoscale Dynamics, Coherence and Computation", PI: C. Lambert (Lancaster U.).
- 2002/2003 Research Project CAM, 07N/0064/2001, " Devices for Quantum Information based in semiconductor nanostructures", PI: L. Viña (UAM).
- 2003/2005 National Research Project (MCYT, Spanish Ministry): MAT2002-02465: " Quantum Transport Properties in Nanodevices", PI: **G. Platero**.
- 2004/2005 Joint Collaborative Project CSIC/CONACYT (UNAM, Ensenada, Mexico): " Spin Pumping in Double Quantum Dots". PIs: **G. Platero** and E. Cota.
- 2004/2007, European Research Network Marie Curie, Project number 504574, PI: C. Lambert, " Fundamentals of Nanoelectronics".
- 2005/2007 Joint Collaborative Project HA2005-0132, DAAD-CSIC, "Adiabatic and Non-Adiabatic Transport in Double Quantum Dots as Charge and Spin Pumps", PIs: P. Hanggi (Augsburg U.) and **G. Platero**.
- 2006/2008 National Research Project (Spanish Ministry), MAT2005-00644: "Charge and Spin Transport in semiconductor nanodevices"; PI: **G. Platero**.
- 2009/2011 National Research Project (Spanish Ministry) MAT2008-02626/NAN: "Electron Dynamics and Charge and Spin in Nanodevices and Nano-electro-mechanical Systems", PI: **G. Platero**.

- 2009/2010 Spanish Network of Out of Equilibrium Physics, FIS2008-04403-F PIs: I. Pagonabarraga (UB) and **G. Platero** (PI ICMN CSIC node).
- 2009/2011 MAT2008-02626/NAN: "Electron Dynamics and Charge and Spin Transport in Nanodevices and Nanoelectromechanical systems"; PI: **G. Platero**.
- 2010/2011 Joint Collaborative Project DE2009-0074 "Transport through Triple Quantum Dots", PI: T. Brandes (UTB, Berlin) and **G. Platero**.
- 2010/2013 Marie Curie Initial Training Network (ITN) no. 234970, UE: "Nanoelectronics: Concepts, Theory and Modelling, NanoCTM". PI: Colin Lambert.
- 2011/2012, Spanish Network of Non-Equilibrium Physical Systems. MICINN, FIS2010-22438-E, IP: I. Pagonabarraga (UB), PI ICMN-CSIC team: **G. Platero**.
- 2012/2014, MAT2011-24331: "Charge and Spin Coherent Transport in Nanodevices", PI: **G. Platero**
- 2015/2016, Spanish Network of Non-Equilibrium Physical systems, MICINN, FIS2014-57117-REDT IP: M. Rubí, PI ICMN-CSIC team: **G. Platero**.
- 2015/2017, MAT2014-58241-P, "Transport of Quantum Information and Energy in Nano-structures", PI1: **G. Platero**, PI2: S. Kohler.
- Participation in the COST action: COST Action MP1209 "Thermodynamics in the Quantum Regime".
- 2017/2019, National Network of Non-Equilibrium Statistical Physics, FIS2016-82028-REDT, I.P: J.M. Rubi, PI ICMN-CSIC team: **G. Platero**.
- 2018-2020, (extended till June 2021) MAT2017-86717-P, "Spin Quantum Bits of Electrons and Holes in Quantum Dots, Effect of AC, Dissipation and Topology". PI1: **G. Platero**, PI2: Sigmund Kohler.
- 16/03/2021- 30/09/2025, Proyecto Nacional: Proyectos Intramurales PTI, QTP2021-03-002, "Qubits híbridos y semiconductores", Co-PI **G. Platero**
- 1/10/2021-31/08/2024 Proyecto Nacional, PID2020-117787GB-I00, Ingeniería Floquet para las Tecnologías Cuánticas, PI1 **Gloria Platero**, PI2 Sigmund Kohler
- 2021, LINKB20072 (CSIC), Quantum Fluctuations and Dissipation: Towards Highly Efficient and Precise Nano Engines, PI: Rosa López, Instituto Física Interdisciplinar y Sistemas Complejos, Palma de Mallorca.
- 2024/2026 Marie Curie Project 101149948 BoFTISync, Topological synchronization of interacting bosons and Floquet engineering, PI: **Gloria Platero**.
- 2024-2027, "Generación del Conocimiento", Spanish Ministry of Science, ID2023-149072NB-I00: Floquet Quantum Technologies for semiconductor nanostructures and topological materials; PI1: S. Kohler, PI2: **G. Platero**.
- 2024 National Network: Topology and Quantum Materials, TOPGMAG, PI A. Cantarero
- 2025/2026, Bilateral Project CSIC-Taiwan, BINST24012, Machine Learning for Controlling Optomechanical Systems, PI Xi Chen

Invited Talks in International Conferences and Workshops

1. NATO Advanced Research Workshop: Science and Engineering of 1- and 0-Dimensional Semiconductors, Cadiz, Spain, 1989.
2. NATO Workshop: Resonant Tunneling: Physics and Applications, El Escorial Spain, 1990.
3. VI simposio Latino Americano de Física de Superficies (SLAFS-VI), San Antonio del Cusco, Perú, 1990.
4. Third E.C.C. Workshop in Localization and Transport Fluctuations in Micro-structures, Chantilly, France, 1993.
5. NATO Workshop Submicron Quantum Dynamics: Quantum Transport in Nano-structures, Trieste, Italy, 1994.
6. Summer School on Superlattices, El Escorial, Spain, 1994.
7. 4th E.C.C. Workshop in Localization and Transport Fluctuations in Micro-structures, Murcia, Spain, 1994.

8. NATO School: Quantum Transport in Semiconductor Submicron Structures, Bad Lautenberg, Germany, 1995.
9. Workshop on Non-linear Processes in Physics, Sigüenza, Spain, 1996.
10. International Conference: Nano-structures 97, La Habana, Cuba, 1997.
11. International Workshop on Time Dependent Quantum Transport, Bad Klein Kirheim, Austria, 1997.
12. National Conference on Statistical Physics, Transport in Nanostructures, Madrid, 1997.
13. Workshop on AC and time-dependent quantum transport, International WE Heraeus Seminar, Bad Honnef, Germany, 1997.
14. International Symposium on Transport in Superlattices, Madrid, Spain, 1998.
15. 6th International Petra School of Physics: Physics of Low Dimensional Systems, Irbid, Jordan, 1998.
16. TMR workshop on Quantum Transport in Frequency and Time domains, Genoa, Italy, 1999.
17. Second Euro-conference on Nanoscience for Nanotechnology, Antwerpen, Belgium, 1999.
18. Euro-conference on Phase Coherent Dynamics in Hybrid Nanostructures 2000, Cargese, France, 2000.
19. Electron Spectroscopies and Strongly Correlated Electron Systems, Aseva Summer School and Workshop WS-5, Avila (Spain), 2000.
20. Space-Frequency and Time-Resolved Quantum Transport, TMR Advanced Research School, Hamburg, Germany, 2000.
21. 240 WE-Heraeus-Seminar on Driven Quantum Systems, Tutzing, Germany, 2000.
22. 11th ECMI (European Consortium for Mathematics in Industry) Conference, Torre Normanna, Palermo, Italy, 2000.
23. EU Conference on Nanoscale Dynamics, Coherence and Computing, Matrafured, Hungary, 2001.
24. Euro-conference on Asymptotic Methods and Applications in Kinetic and Quantum-Kinetic Theory, Granada, Spain, 2001.
25. TMR workshop: Quantum Transport in the Frequency and Time Domains, Bad Kleinkirheim, Austria, 2002.
26. NATO Workshop: Recent Trends in Theory of Physical Phenomena in High Magnetic Fields, Les Houches, France, 2002.
27. European Conference: Nanoscale, Dynamics, Coherence and Computation, Rome, 2002.
28. 283 International WE Heraeus Workshop on: Localization and Quantum Coherence, Hamburg, Germany, 2002.
29. Mathematical Aspects of Semiconductor Modeling and Nanotechnology, American Physical Society and Spanish Mathematical Society, Sevilla, Spain, 2003.
30. III Iberoamerican workshop on Nanostructures and their applications in micro and nanoelectronics (NANO'2003), Madrid, Spain, 2003.
31. Frontiers in Research Lectures: Nano- from small beginnings to a great future, Ottawa University: "Nanodevices for Spintronics", Ottawa, Canada, 2003.
32. Fifth International Conference on Low Dimensional Structures and Devices (LDSD 2004) "AC-Driven Double Quantum Dots Operating as Spin Pumps and Bipolar Spin Filters", Cancun, Mexico, 2004.
33. International Conference on Correlations in Quantum Systems: Quantum Dots, Quantum Gases and Nuclei: "Spin transport in double quantum dots", Majorca, Spain 2005.
34. Marie Curie Workshop: Nanoscale Dynamics and Quantum Coherence: "AC-Driven Double Quantum Dots Operating as Spin Pumps and Bipolar Spin Filters", Catania, Italy, 2005.
35. 2nd International Conference on Transport Phenomena in Micro and Nanodevices (ECI): "Spin transport in AC-Driven Quantum Dots", Barga, Italy, 2006.
36. Workshop on Fundamentals of Nanoelectronics, " Electron Spin Resonance in Double Quantum Dots", Portoroz, Eslovenia, 2007.
37. ECMI 2006, The 15th European Conference of Mathematics for Industry, "Spin Dynamics in double quantum dots", London, UK, 2008.

38. Frontiers of Quantum and Mesoscopic Thermodynamics: "Spin transport in double quantum dots: role of Hyperfine interaction", Prague, Czech Republic, 2008.
39. International Workshop on Correlated Electron Systems in High Magnetic Fields: "Hyperfine interaction in Quantum Dots", Dresden, Germany, 2008.
40. 2nd FoNE Workshop Spico-SPINTRA and SPINCURRENT: "Spin Dynamics in Quantum Dots", Palermo, Italy, 2008.
41. Workshop on Noise and Full Counting Statistics in Mesoscopic Transport: "Electron Spin Resonance in Quantum Dots", Bad Honnef, Germany, 2009.
42. Workshop on Out of Equilibrium Systems, "Spin Dynamics in Nanodevices", UB, Barcelona, Spain 2009.
43. XXXII Biennial of Physics, Royal Spanish Physical Society,
Keynote Talk: " Quantum Coherence and Spin Transport in Quantum Dots", Ciudad-Real, Spain, 2009.
44. ITN Meeting on Nanoelectronics - Concepts, Theory and Modeling: "Magneto-transport and Electron Spin Resonance in Quantum Dots", Bremen, 2010.
45. 6th International Workshop on Nano-magnetism and Superconductivity: "Electron Spin Resonance in Quantum Dots", Comarruga, Spain, 2010.
46. Spintronics Days at UPV-EHU (2010): "Magneto-transport and electron spin resonance in double and triple quantum dots", Bilbao, Spain, 2010.
47. Workshop on Science and Society: 80th Birthday of Prof. F. García-Moliner: "Spin Coherent Phenomena in Quantum Dots", ICMM, Madrid, 2010.
48. International Workshop, Theory Days on Quantum Dots and Wires: "Spin Dynamics in Triple Quantum Dots", Toulouse, France, 2010.
49. International workshop on Noise in Non-Equilibrium Systems: From Physics to Biology: "Floquet Theory for Electron Spin Resonance in Quantum Dots", Dresden, Germany, 2011.
50. Third Nano-Mediterranean meeting on Nanostructures: "Electron dynamics in arrays of quantum dots driven by ac magnetic fields", Palma de Mallorca, Spain, 2011.
51. Frontiers of Quantum and Mesoscopic Thermodynamics 2011: "Localization of interacting electrons by ac electric fields in quantum dots arrays", Prague, Czech Republic, 2011.
52. International Conference on Magnetism and Superconductivity at the Nanoscale: "Topology and Phase: two ways for coherent control of electron dynamics", Comarruga, Spain, 2011.
53. Workshop on Open Quantum Systems: "Coherent control of electron dynamics by AC fields", Leganes, UCIII, Madrid, Spain 2011.
54. Workshop on Transport Phenomena for Different Scales: "Coherent dynamics of electrons in ac driven quantum dot arrays", Sevilla, Spain 2012.
- 55- XXIII Sitges Conference on Statistical Mechanics: Understanding and Managing Randomness in Physics, Chemistry and Biology. **Plenary Talk:** "Bipolar Spin Blockade in Triple Quantum Dots", Sitges, Spain, 2012.
56. Symposium on Quantum and Optical Dynamics in Transport Phenomena: "Bipolar Spin Blockade in Triple Quantum Dots", Madrid, Spain, 2012.
57. 8th International Workshop on Nano-magnetism & Superconductivity: "Bipolar Spin Blockade in Triple Quantum Dots", Comarruga, Spain, 2012.
58. Cycle of Outreach Conferences: "Ágora para la Ciencia": "Artificial Atoms and Molecules for Quantum Information", "Residencia de Estudiantes CSIC", Madrid, Spain 2013.
59. XXIV Sitges Conference on Statistical Mechanics: New Horizons in Statistical Physics and its Applications. **Plenary Talk:** "Super-exchange transport and blockade in triple quantum dots", Barcelona, Spain, 2014.
60. 10th International Workshop on Nano-magnetism & Superconductivity at the Nanoscale: "Super-exchange transport in quantum dot arrays", Comarruga, Spain, 2014.
61. ICPS, International Conference of the Physics of Semiconductors: "Long range electron transport in quantum dots arrays", Austin, USA, 2014.
62. 12th International Workshop on Nano-magnetism & Superconductivity at the Nanoscale: "Long range transfer of interacting electrons in quantum dot arrays: interplay between topology and dynamical phases". Comarruga, Spain, 2016.
63. ICSNN, International Conference on Superlattices, nanostructures and Nanodevices: "Long

- Range Transport and Dark States in Driven Quantum Dot Arrays", Hong Kong, 2016.
64. Transport in Interacting Disordered Solids, TIDS 2016: "Long range transfer of interacting electrons in quantum dot arrays", Granada, Spain, 2016.
 65. Birs 2016, workshop on: Coupled Mathematical Models for Physical and Biological Nanoscale Systems and Their Applications: "Interference of real and virtual transitions in quantum dot chains", Banff, Canada, 2016.
 66. Workshop on Nano-Science in Condensed Matter: "Quantum Transport and Dark States in Quantum dot Arrays", Gregoria Millán Institute, Madrid, Spain, 2017.
 67. Workshop on Interference effects in the transport characteristics of open quantum systems: "Dark States in Quantum Dot Arrays", Max Planck Institute for Complex Systems, Dresden, Germany, 2017
 68. SPICE, International Workshop: Topology Matters: "Sublattice Transport of interacting electrons in two dimensional systems", Mainz, Germany, 2017.
 69. 13th International Workshop on Nano-magnetism & Superconductivity at the Nanoscale: "Qubit Transfer in quantum dot arrays", Comarruga, Spain 2017.
 70. Workshop on Challenges in Non-Linear Systems: "Transport and Quantum Interferences in AC Driven Quantum Dots", UC3M, Madrid, 2017.
 71. The 5th International Workshop on the Optical Properties of Nanostructures (OPON2018): "Long range transport in ac-driven quantum dot arrays", Münster, Germany, 2018.
 72. Fields Focus Program Nanoscale systems and coupled phenomena. Workshop on Recent Progress in Nonlinear Quantum Mechanics, Theory, Simulations and Experiment: "Non-linear Transport in Artificial Molecules", Fields Institute, Toronto, Canada, 2018.
 73. Fall Conference of the Brasil Physical Society: "Spin Qubit Manipulation and Quantum State Transfer in Quantum Dot Arrays", Iguazú, Brasil 2018.
 74. 14th International Workshop on Nanomagnetism & Superconductivity at the Nanoscale: "Qubit Transfer in quantum dot arrays", Comarruga, Spain, 2018.
 75. International Conference on the Physics of Semiconductors, ICPS 2018: "Transport in Triple Quantum Dots", Montpellier, France, 2018.
 76. UK Quantum Dots Day 2019 (IOP, Institute of Physics): "Quantum State Transfer in Quantum Dot Arrays", Lancaster, UK, 2019
 77. Symposium at the Uppsala University: "Long Range Quantum Transfer in Solid State Devices", Uppsala, Sweden, 2019.
 78. International Workshop: Quantum Designer Physics, "Quantum State Transfer in Solid State Devices", San Sebastián (Spain), 2019.
 79. International Conference: NanoGe 2019, Symposium on Two Dimensional Materials: "Sublattice Transfer in Lieb and other 2D lattices", Berlin, 2019.
 80. Workshop: Quo vadis quantum simulators? Wilczek Quantum Center: "Simulation of 1D topological phases in driven quantum dot arrays", Shanghai, 2019.
 81. International Workshop: Geometric Resources for Quantum Engineering. "Simulation of topological phases in driven quantum dot arrays", Sevilla, 2020.
 82. Metanano2020, Symposium on Topological states in classical and quantum systems: "Simulation of topological phases in driven artificial atomic arrays", Tbilisi, Georgia, September 2020 (On-line)
 83. QUANTUM 21, "Long -range Qubit Transfer in Atomic Chains", Bilbao, November 2021
 84. Material Science University Institute Nicolás Cabrera: XXIV Young Researchers Meeting, December 2021.
 85. Workshop: "Topological Quantum Matter", Buenos Aires, April 2022.
 86. Workshop: "Semiconductors, nanostructures, 2D systems and Dirac matter", HFML Grenoble, June 2022.
 87. International conference: Quantum 2022, invited to the Round Table on Semiconductors Barcelona. June, 2022
 88. "Quantum Designer Physics", International Conference, San Sebastián, July 2022.
 89. "International Conference on Strongly Correlated Electron Systems (SCES 2022), Amsterdam, July, 2022.
 90. International Conference: Spin Qubit 5, September, Switzerland, 2022.

91. DPG, Spring meeting in Condensed Matter, Dresden, March 2023
92. **Plenary talk**, International XXVII Sitges Conference on Statistical Mechanics, May 2023.
93. **Keynote talk**, international workshop: “Novel trends topological systems and quantum thermodynamics”, Palma de Mallorca, June 2023.
94. **Keynote talk**, International Workshop on Microwave Research and Applications, Comarruga, July, 2023.
95. EDINSON: 22nd International Conference on Electron Dynamics in Semiconductors, Optoelectronics and Nanostructures, Münster, August, 2023.
96. MRS Fall Meeting, “Spin Qubits in Quantum Dot Arrays”, September 2023.
97. Symposium on Quantum Thermodynamics and Transport, EPS CMD, Braga, September 2024.
98. International Workshop: Topology and Correlations in Crystals and Quantum Matter, les Houches, September 2024.
99. Program “Conciencia” , Workshop of Physics for knowledge and technology , Santiago de Compostela, September 2024.
- 100 TopMag (Topology and Magnetism) Meeting, Salamanca University, October 2024.
101. International Conference on Advances in topological condensed matter, Trieste, ICTP, November 2024
102. Quantum Matter, Grenoble, May 2025
- 103 Superconductivity, Disorder, Interactions and Quantum Technologies (SDIQT25), June 2025
- 104 **Plenary Talk** at the 15th International Conference on Metamaterials, Photonic Crystals, and Plasmonics (META 2025) July, 2025
- 105 LT30, Low Temperature Conference, “Long-range transfer of quantum information mediated by topological edge states”, August 2025

Other invited talks:

106. Quantum Matter Seminar, Boston U. (on-line) April 2022

Dissemination:

107. “Artificial Atoms and Molecules: Semiconductor Quantum Dots”, UCM Dissemination Days: " Last Advances in Condensed Mater Physics", Madrid, March 2018.
108. “Problems on non-linear Physics at the Nanoscale”, Lectures for Industrial Problems (Industrial Mathematics Master), Santiago de Compostela, Vigo, La Coruña and Carlos III Universities, 15 October 2021
- 109 “Woman and Science”, (“Mujer y Ciencia”), Technological Research Institute, Comillas University, 25 February 2021.
110. “Quantum Dots: Platforms for Quantum Computation and Simulation”, (Balearic Islands University UIB), May 2022.
111. “Spin Qubits in Quantum Dots for Quantum Computation and Quantum Information”, U. Carlos III, May 2023.

Invited to other several conferences and workshops which I did not attended due different reasons as the overlapping with other conferences or panels as the ICSNN, Vietnam, July 2022 (cancelled by the Pandemia), the Gordon Grodfey Workshop in Sydney (2023) or a Keynote to the International Workshop: “Optics, Electronics and Magnetism in 2D Materials, San Sebastián, May 2024.

Participation in different international forums for the support of women in science as round tables and women’s meetings organized in international conferences and in research centers.

Collaborator with the SMC (Science Media Center), Spain, for the dissemination of scientific impact news.

Invited to the event as speaker: “The Impact of the women in science, and of the science in the women”, CaixaForum, Madrid, 11 February 2025

Radio interview, Cadena SER Ciudad Real (January 17, 2025) on the occasion of the Emmy Noether Award.

Interviewed by El Pais on the occasion of the Emmy Noether Award.

Invited Seminars in Research Centers

- 1- Max Planck Institute for High Magnetic Fields (Grenoble): “Band Offsets in Hetero-junctions”, November 1985.
- 2- Max Planck Institute for High Magnetic Fields (Grenoble): “Uniaxial stress on GaAs-AlGaAs quantum wells and InAs-GaSb superlattices”, May 1986.
- 3- Milan University (Italy): " Electronic Properties of Superlattices", March 1987.
- 4- Montpellier University (France): "Uniaxial stress effects on the valence band structure of quantum wells and superlattices", November 1987.
- 5- Microelectronics Institute, CSIC (Madrid): "Magneto-transport through semiconductor barriers", May 1989.
- 6-PTB, Braunschweig (Germany): "Magneto-tunnelling through microstructures", June 1989.
- 7-Laboratoire de Spectrometrie Physique, Universite de Grenoble (France): "Resonant Magneto-tunnelling through semiconductor double barriers", June 1990.
- 8- Materials Science Institute of Madrid, CSIC: "Tunneling current through ac driven nanostructures", June 1993.
- 9-PTB Braunschweig: "Photo-assisted Tunnelling through Double Barriers", June 1993.
- 10- Carlos III University (Madrid): “Sequential and coherent tunneling current through semiconductor heterostructures”, June 1994.
- 11- Complutense University (UCM), (Madrid): Photo-assisted Tunnel through Semiconductor Double Barriers, January 1994
- 12- MPI (Stuttgart, Germany): "Coherent and Sequential Photo-assisted Tunnelling through Semiconductor Heterostructures", February 1994.
- 13- Hamburg University (Germany): "Photo-assisted tunnelling through semiconductor heterostructures", February 1994.
- 14-Valencia University: “Photoassisted tunneling current through semiconductor nano-structures” June 1994.
- 15-Hochfeld Magnet Labor, Max Planck Institute (Grenoble): "Magneto-tunnelling through resonant heterostructures in the presence of light", September 1994.
- 16- Leoben University (Austria): “Photo-assisted tunnelling through nanostructures”, October 1995.
- 17-Materials Science Institute of Madrid (CSIC): “Transporte en nanoestructuras en presencia de potenciales dependientes del tiempo”, January 1996.
- 18- Basque Country University: "Photoassisted Tunnelling in Nanostructures", San Sebastián, May 1997.
- 19-Ringberg Schloss (Tegensee, Alemania), Internal group meeting (Prof. K. Von Klitzing, MPI, Stuttgart): "Resonant tunnelling through semiconductor multi-quantum wells", April 1997.
- 20- Karlsruhe University: "Photo-assisted Tunnelling through Superlattices: Dynamical Localization and Absolute Negative Conductance", May 1997.
- 21- Augsburg University: " Non-Linear Transport in Driven Multi-Quantum Wells", May 1997.
- 22-Stuttgart University: "Photo-assisted Tunnelling through Nanostructures", May 1997.
- 23-Universidad a Distancia (UNED) (Madrid):" Non-Linear Transport in Superlattices", April 2001.
- 24-Hochfeld Magnet Labor, Max Planck Institute (Grenoble): "Kondo Physics in AC-Driven Quantum Dots", May 2001.

- 25-Institute for Microstructural Sciences, National Research Council of Canada, Ottawa (Canada): "AC Driven Double Quantum Dots: Localization and Entanglement", November 2003
- 26- Donostia International Physics Center, San Sebastian: "Control of electron Dynamics in Quantum Dots by AC gate voltages", December 2003.
- 27- Geneve University (Switzerland): "Electron Dynamics in AC Driven Quantum Dots", May 2004.
- 28- Freiburg University (U.) (Switzerland): "Control of entanglement in ac driven quantum dots arrays", May 2004.
- 29- Carlos III U. (Madrid): "Spin Pumping through Double Quantum Dots", December 2004.
- 30- Balearic Islands U.: "Spin Filtering Quantum Dots", May 2005.
- 31-Ensenada U. (Mexico): "Electron Dynamics in Double Quantum Dots in AC potentials", June 2005.
- 32-Molecular Physics Institute, PAS, Poznan (Poland): "Double Quantum Dots as Bipolar Spin Filters and Spin Pumps", November 2005.
- 33- IFISC, Balearic Islands U.: "Transport in Double Quantum Dots", May 2008.
- 34-Carlos III U. (Madrid): "Magneto-transport in Quantum Dots", April 2009.
- 35-Complutense U. Madrid: "Spin Dynamics in Quantum Dots", June 2009.
- 36- Regensburg U.: "Coherent Phenomena in Quantum Dots", November, 2009.
- 37-Aachen U.: "Coherent Spin Phenomena in Quantum Dots", November 2010.
- 38-UAM (Madrid): "Electron Spin Resonance in Triple Quantum Dots", December 2010.
- 39-Carlos III U. (Madrid): "Spin Blockade in Quantum dots", February 2012.
- 40-Leipzig U. (Hannover): "Long range Transport in triple quantum dots", November 2012.
- 41-Salamanca U.: "Coherent Transport and Spin Blockade in Quantum Dot Arrays", March 2013.
- 42-Hamburg U.: "Long range Transport in Triple Quantum Dots", May 2014.
- 43- Balearic Islands U.: "Long range Transport in Triple Quantum Dots", June 2014.
- 44- Leipzig U. (Hannover): "Transfer of spins between distant sites and quantum interferences in quantum dots arrays", March 2015.
- 45-ICMM (CSIC): "Long range transport in quantum dot arrays", March 2016.
- 46-British Columbia U., Vancouver: "Long range transport in ac driven dimer chains", September, 2016.
- 47-NRC Steacie Colloquium: "Quantum coherent transport and quantum interferences in quantum dot arrays", NRC, Ottawa, September 2016.
- 48-Utrecht U.: "Long range transport of interacting electrons in ac driven dimer chains", October 2016.
- 49-UTB (Berlin): "Direct Spin Qubit transfer between distant sites in quantum dot arrays", November 2016.
- 50-Hamburg U.: "Transport of doublons in dimer arrays", December 2016.
- 51- City U. of Hong Kong: "Transfer of interacting fermions in atomic arrays", March 2017.
- 52-Donostia International Center: "Quantum State Transfer in Quantum Dot Arrays", San Sebastián, April 2018.
- 53- Konstanz U.: Colloquium: "Qubit Manipulation and Quantum State Transport in Triple Quantum Dots", May 2018.
- 54-Regensburg U.: Colloquium: "Qubit Manipulation and Quantum State Transfer in Quantum Dot Arrays", June 2018.
- 55- Basel U.: Colloquium: "Quantum State Transfer in Quantum Dot arrays", November 2018.
- 56- Uppsala U.: "Long range quantum state transfer in quantum dot arrays", January 2019.
- 57- Zaragoza U., "Quantum Tuesday": "Quantum State Transfer in Solid State devices", May 2019.
- 58- NRC, Ottawa: "Reducing charge noise in singlet-triplet transitions by shortcuts to adiabaticity protocols", August 2020 (virtual).
- 59-ICMM-IFIMAC Seminar Series: "Simulation of topological phases in quantum dot arrays", ICMM, Madrid, February 2022.

60. Santiago de Compostela University, Particle Physics Institute: “Long-range Quantum Information Transfer in artificial atoms”, June 2023.
61. Augsburg U.: “Spin Qubits in Semiconductor Quantum Dots”, December 2023.
62. Surrey U.(UK): “Long-range Quantum Information Transfer in Quantum Dot Arrays”, February 2024.
63. ISTA (Wien, Austria), Colloquium: “Hole Spin Qubits in Quantum Dot Arrays”, June 2024.

Participation in the program, organizing or steering committee of conferences and workshops

Member of the organizing and program committee

- "Modulated Semiconductor Structures (MSS 7)", Madrid, July 1995
- "Phase-Coherent Dynamics of Hybrid Nanostructures", Miraflores, Madrid, April 1997
- XVI Sitges Conference: "Euroconference on Statistical and Dynamical Aspects of Mesoscopic Systems", Sitges, Barcelona, June 1999
- XVII Sitges Conference, "Euroconference on Coherent Structures in Classical Physics", Sitges, Spain, June 2000
- "Nanoscale Dynamics, Coherence and Computation", Cala Viñas, Mallorca, October 2003
- "International Workshop on Nanoscale Dynamics and Quantum Coherence", Hamburg, Germany, September 2004
- "Nanoscale Dynamics and Quantum Coherence", Catania 2005
- “Nonequilibrium condensed matter and biological systems”, Madrid, March 9, 2016
- Quantum Information in Spain ICE-6, online, 2021
- ICSNN-2020, Vietnam, 2022

Member of the organizing committee

- "Non-linear Charge and Spin Transport in Semiconductor Nanostructures", ECMI, Leganes, Madrid, 2006
- International workshop: "Física de Sistemas fuera del Equilibrio", Leganés, Madrid, January 2010
- International workshop: "Non-linear spin and charge transport through nanoscopic systems", Palma de Mallorca, June 2011
- International Physics School, Fundamentals of Nanoelectronics, Tenerife, February 2012
- Symposium on Quantum and Optical Dynamics in Transport Phenomena.; Madrid, 29 June, 2012
- ICSNN 2012 (Dresden, Germany), July 2012
- National Network for Out of Equilibrium Systems, October 2012
- Silicon Quantum Electronic Workshop, San Sebastian, October 2019
- QUANTUMatter 2023, Madrid 2023

Program committee member

- ICSNN2014 (Georgia, USA). August 2014
- 19th International Conference on Electron Dynamics in Semiconductors, Optoelectronics and Nanostructures, EDISON'19, Salamanca, 29 July 2015
- EMN meeting on THz, Energy, Materials Nanotechnology, San Sebastián, May 2016
- 19th International Conference on Superlattices, Nanostructures and Nanodevices (ICSNN 2016)", Hong Kong, 25-30 July 2016

- 13th International Workshop on Nanomagnetism & Superconductivity at the Nanoscale: Comarruga, July 2017
- 20th International Conference on Electron Dynamics in Semiconductors, Optoelectronics and Nanostructures, EDISON'19, Buffalo, July, 2017
- 13th International Workshop on Nanomagnetism & Superconductivity at the Nanoscale: Comarruga, July 2018
- Quantum Information in Spain ICE-6, online, 2021
- QUANTUM 22, Barcelona, June, 2022
- ICE-8 (Quantum Information in Spain), Santiago de Compostela 2023
- ICE-9, Puerto de la Cruz, 2024
- QUANTUM MATTER, San Sebastian 2024
- PLMCN24, Tbilisi, Georgia, 2024

Advisory committee member

- The International Conference for Low Temperature Physics, Buenos Aires, 2014.
- The International Conference for Low Temperature Physics, Stockholm, 2017.
- Quantum Information in Spain ICE-4, Madrid, 2017
- 36th International Conference on the Physics of Semiconductors (ICPS), Ottawa, 2024
- The International Conference for Low Temperature Physics (LT30), Bilbao, 2025.

Chair, co-chair, co-organizer:

- **Chair:** ICSNN 2018 (International Conference of Superlattices, Nanostructures and Nanodevices), Madrid, July 2018.
- **Co-organizer** of the Silicon Quantum Electronics Workshop, San Sebastian, October, 2019.
- **Co-chair** of the international conference SPIN QTECH, Pontresina, Switzerland, 2022.
- **Co-chair** of the mini-colloquia on “Fundamental Bounds in nano-engines”, at the CMD30, FisMAT 2023 in Milan

Memberships of scientific societies, institutions and Platforms

Member of the European Physical Society (EPS)

Member of the American Physical Society (APS)

Member of the German Physical Society (DPG)

Member of the Spanish Royal Society of Physics (RSEF):

Condensed Matter Division (GEFES, RSEF); Quantum Information Group (GEIC, RSEF);

Spanish Group of Women in Physics (GEMF, RSEF)

Member of the Spanish Nanotechnology Network (NanoSpain)

Member of the Quantum Information Network in Spain (RICE)

Member of the Association of Women Scientists and Technologists (AMIT)

Member of the Quantum Transport and Thermodynamics Society (QTTS)

Member of the Research Platform (CSIC) on Quantum Nanotechnologies (PTI-001)

Member of The University Institute Gregorio Millán (Carlos III U. of Madrid) on Nanoscience and Industrial Mathematics.

List of Publications

Summary 18 PRL (1 front page, 1 Ed Suggestion, 1 highlighted), Nature Nanotech., Science Advances, PRX Quantum, npj Quantum Materials, Science China Physics, Mechanics & Astronomy, and also several publications in Quantum, Comm. Physics, 79 PRB (9 RC), NJP,

PRR, PRA, Phys. Rev. Applied, Adv. Quantum Technologies, J. Phys. Mater, Applied Phys. Lett., Surface Sci., etc... (with >7400 cites and h=45 GS)

1. "Surface Waves in Solids and Fluids"; G. Platero, V.R. Velasco and F. Garcia Moliner, *Physica Scripta*, **23**, 1108-1112 (1981).
2. "Surface Green Function Matching for Crystal Lattice Dynamics", F. García Moliner, G. Platero and V. R. Velasco, *Surface Sci.*, **136**, 601-628 (1984).
3. "Surface Green Function Matching Approach to the Surface Dynamics of Ionic Crystals: I. Equivalence with the Invariant Green Function Method", G. Platero, F. García Moliner, V. R. Velasco, G. Benedek and L. Miglio, *Surface Sci.* **143**, 243-252 (1984).
4. "Surface Green Function Matching Approach to the Surface Dynamics of Ionic Crystals: II. Theoretical Analysis of the Inelastic Scattering of He from NaF (001) in the Eikonal Approximation", G. Platero, A. Levi, G. Benedek, L. Miglio, V. R. Velasco and F. García Moliner, *Surface Sci.*, **143**, 253-266 (1984).
5. "Lattice vibrations at (111) and (110) surfaces of fcc transition metals by using the surface Greens function matching SGFM method", G. Platero, V. R. Velasco and F. García-Moliner, *Surface Sci.* **152**, 819-825 (1985).
6. "Initial stages of the Schottky barrier formation for abrupt covalent interfaces", G. Platero, J.A. Verges and F. Flores, *Surface Sci.* **168**, 100-104 (1986).
7. "Electronic structure of (100) semiconductor heterojunctions", G. Platero, J. Sanchez Dehesa, C. Tejedor and F. Flores, *Surface Sci.*, **168**, 553-557 (1986).
8. "Anion-induced surface states for the ideal (100) faces of GaAs, AlAs and GaSb", G. Platero, J. Sánchez Dehesa, C. Tejedor, F. Flores and A. Muñoz, *Surface Sci.*, **172**, 47-56 (1986).
9. "Initial Stages of the Schottky barrier formation for an abrupt Al-GaAs (100) interface", J.C. Duran, G. Platero and F. Flores, *Phys. Rev. B*, **34**, 2389-2393 (1986).
10. "Uniaxial in-plane stress dependences of excitons in GaAs-AlGaAs quantum wells", G. Platero and M. Altarelli, *Journal de physique C5*, 581 (1987).
11. "Electronic structure of superlattices and quantum wells under uniaxial stress", G. Platero and M. Altarelli, *Phys. Rev. B*, **36**, 6591-6595 (1987).
12. "Reflectance spectroscopy on GaAs-GaAlAs single quantum wells under in plane uniaxial stress at liquid Helium temperature", B. Gil, P. Lefevre, H. Mathieu, G. Platero, M. Altarelli, T. Fukunaga and H. Nakashima, *Phys. Rev B*, **38**, 1215-1220 (1988).
13. "Magnetic hole levels in quantum wells in parallel fields", M. Altarelli and G. Platero, *Surface Sci.*, **196**, 540-544 (1988).
14. "Effect of high transverse magnetic field on the tunnelling through barriers between semiconductors and superlattices", L. Brey, G. Platero and C. Tejedor, *Phys. Rev. B*, **38**, 9649-9656 (1988).
15. "Generalized Transfer Hamiltonian Method for the study of resonant tunneling", L. Brey, G. Platero and C. Tejedor, *Phys. Rev B*, **38**, 10507-10511 (1988).

16. "Hole levels of GaAs-AlGaAs quantum wells in a parallel magnetic Field", M. Altarelli and G. Platero, *Superlattices and Microstructures*, **5**, 499-502 (1989).
17. "Valence band levels and optical transitions in quantum wells in a parallel magnetic Field", G. Platero and M. Altarelli, *Phys. Rev B*, **39**, 3758-3763 (1989).
18. "Magneto-tunneling in semiconductor superlattices", L. Brey, G. Platero and C. Tejedor, *Superlattices and Microstructures*, **5**, 531 (1989).
19. "Coherent and sequential tunneling in double barriers with transverse magnetic Fields", G. Platero, L. Brey and C. Tejedor, *Phys. Rev. B*, **40**, 8548-8551 (1989).
20. "Quantum transmission channels for magneto-tunneling in semiconductor microstructures", G. Platero, P. A. Schulz, L. Brey and C. Tejedor, *Surface Sci.* **228**, 291-295 (1990).
21. "Coherent and sequential resonant magneto-tunneling through double barrier structures", G. Platero, P. Schulz and C. Tejedor, *Surface Sci.*, **229**, 177-181 (1990).
22. "Inter-band Magneto-optics in GaAs-AlGaAs Quantum Wells in a parallel Field", A. Fasolino, G. Platero, M. Potemski, J. C. Maan, K. Ploog and G. Weimann, *Surface Sci.*, **267**, 509-513 (1992).
23. "Interband Resonant Tunneling and Transport in InAs/AlAs/GaSb heterostructures", M. A. Davidovich, E. Anda, C. Tejedor and G. Platero, *Phys. Rev. B*, **47**, 4475-4484 (1993).
24. "Sequential tunneling through a GaAs/AlGaAs double barrier assisted by light", J. Iñarrea, G. Platero and C. Tejedor, *Superlattices and Microstructures*, **14**, No 4, 257-259 (1993).
25. "Resonant Tunneling Through a Double Barrier Structure Assisted by a Photon Field", J. Iñarrea, G. Platero and C. Tejedor, *Semiconductor Sci. and Tech.*, **9**, 5S, 515-518 (1994).
26. "Coherent and sequential photo-assisted tunneling through a semiconductor double barrier structure", J. Iñarrea, G. Platero and C. Tejedor, *Phys. Rev. B*, **50**, 4581-4589 (1994).
27. "Light-assisted magneto-tunneling through a semiconductor double-barrier structure", J. Iñarrea and G. Platero, *Phys. Rev. B*, **51**, 5244 (1995).
28. "Resonant tunneling in time dependent Fields through laterally confined double barriers", R. Aguado, J. Iñarrea and G. Platero, *Surface Sci.*, **361**, 217-221 (1996).
29. "Photoinduced current bistabilities in a semiconductor double barrier", J. Iñarrea and G. Platero, *EPL*, **33**, 477-482 (1996).
30. "AC Field Assisted Current in GaAs-AlGaAs superlattices", J. Iñarrea and G. Platero, *Solid State Electronics*, **40**, 295-298 (1996).
31. "Photo-assisted sequential resonant tunneling through superlattices", J. Iñarrea and G. Platero, *EPL*, **34**, 43-48 (1996).
32. "Coherent resonant tunneling in AC Fields", R. Aguado, J. Iñarrea and G. Platero, *Phys. Rev. B*, **53**, 10030-10041 (1996).
33. "Dynamical Localization and Stimulated Absorption and Emission induced by a THz Field in a Double Quantum Well", R. Aguado and G. Platero, *Superlattices and Microstructures*, **22**, 9-13 (1997).

34. "Dynamical Localization and Absolute Negative Conductance in AC-Driven Double Quantum Wells", R. Aguado and G. Platero, Phys. Rev. B, **55**, 12860-12863 (1997).
35. "Microscopic Model for Sequential Tunneling in Semiconductor Multiple Quantum Wells", R. Aguado, G. Platero, M. Moscoso and L. L. Bonilla, Phys. Rev. B, Rapid Comm., **55**, R16053-16056 (1997).
36. "Sequential Tunneling Current through Semiconductor Superlattices under intense THz Radiation", G. Platero and R. Aguado, Appl. Phys. Lett., **70**, 3546-3548 (1997).
37. "Electric Field Domain Formation and Multistability in Semiconductor Multiple Quantum Wells in the Presence of THz Radiation", R. Aguado and G. Platero, Phys. Status Solidi, **164**, 235-239 (1997).
38. "Electron-photon interaction in resonant tunneling diodes", J. Iñarrea, R. Aguado and G. Platero, EPL, **40**, 417-422 (1997).
39. "Photon assisted electric Field domains in doped semiconductor superlattices", R. Aguado and G. Platero, Physica B, **249-251**, 904-908 (1998).
40. "ac Kondo effect in Quantum Dots", R. Aguado, R. López, G. Platero and C. Tejedor, Physica B, **256-258**, 165-168 (1998).
41. "Magnetic Field induced charge instabilities in weakly coupled superlattices", R. Aguado and G. Platero, Physica B, **256-258**, 233-238 (1998).
42. "Kondo effect in AC transport through quantum dots", R. López, R. Aguado, G. Platero and C. Tejedor, Phys. Rev. Lett., **81**, 4688-4691 (1998).
43. "Photoinduced multistable phenomena in the tunneling current through doped superlattices", R. Aguado and G. Platero, Phys. Rev. Lett., **81**, 4971-4974 (1998).
44. "Current self-oscillations, spikes and crossover between charge monopole and dipole waves in semiconductor superlattices", D. Sanchez, M. Moscoso, L.L. Bonilla, G. Platero and R. Aguado, Phys. Rev. B, **60**, 4489-4492 (1999).
45. "AC transport through a quantum dot: from Kondo to Coulomb-Blockade behavior", R. López, R. Aguado, G. Platero and C. Tejedor, Physica E, Low-dimensional Systems and Nanostructures, **6**, 379-381 (2000).
46. "Dynamics of electric Field domain walls in semiconductor superlattices", D. Sánchez, M. Moscoso, L. L. Bonilla, G. Platero and R. Aguado, Physica E, Low-dimensional Systems and Nanostructures, **7**, 299-301 (2000).
47. "Microscopic Derivation of the drift velocity and diffusion coefficients in discrete drift-diffusion models of weakly coupled superlattices", L. L. Bonilla, G. Platero and D. Sanchez, Phys. Rev. B, **62**, 2786 (2000).
48. "Quasiperiodic current and strange attractors in AC-driven superlattices", D. Sánchez, G. Platero and L. L. Bonilla, Phys. Rev. B, Rapid Comm., **63**, 201306R (2001).
49. "Low temperature transport in AC-driven quantum dots in the Kondo regime", R. López, R. Aguado, G. Platero and C. Tejedor, Phys. Rev. B, **64**, 075319 (2001).

50. "Temperature dependence of current self-oscillations and electric field domains in sequential tunneling doped superlattices", D. Sánchez, L. L. Bonilla and G. Platero, Phys. Rev. B, **64**,115311 (2001).
51. "Canted Phase in Double Quantum Dots", D. Sánchez, L. Brey and G. Platero, Phys. Rev. B, **64**, 235304 (2001).
52. "Field domain spintronics in magnetic semiconductor multiple quantum wells", D. Sánchez, A. MacDonald and G. Platero, Phys. Rev. B, **65**, 035301 (2001).
53. "Non-linear spin transport in magnetic semiconductor multiple quantum wells", D. Sánchez, A. H. MacDonald and G. Platero, Physica E, Low-dim. Systems and Nanostructures, **13**,525-528 (2002).
54. "Temperature-induced breakdown of stationary electric field domains in superlattices", D. Sánchez, L. L. Bonilla and G. Platero, Physica E, Low-dim. Systems and Nanostructures, **13**,798-801 (2002).
55. "Photo-assisted dynamical transport in multiple quantum wells", Rosa López, David Sánchez and Gloria Platero, Physica E, Low-dim. Systems and Nanostructures, **12**, 319-322, (2002).
56. "Canted phase in Artificial molecules", David Sánchez, Luis Brey and Gloria Platero, Physica E, Low-dim. Systems and Nanostructures,**12**, 904-907 (2002).
57. "Transport in quantum dots in the Kondo regime under the influence of an AC potential", R. López, R. Aguado, G. Platero and C.Tejedor, Physica E, Low-dim. Systems and Nanostructures, **12**, 810 (2002).
58. "Competition between anti-ferromagnetism and Kondo effect in the non-equilibrium transport through double quantum dots", R. López, R. Aguado. and G. Platero, Phys. Rev. Lett., **89**, 136802 (2002).
59. "Coherent transport in a two-electron quantum dot molecule", C. E. Creffield and G.Platero, Phys. Rev B, **65**,113304 (2002).
- 60."Dynamical control of correlated states in a square quantum dot", C. E. Creffield and G. Platero, Phys. Rev. B, **66**, 235303 (2002).
- 61."Spin dynamics in diluted magnetic semiconductor superlattices", M. Béjar, D. Sánchez, G. Platero and A. H. MacDonald, Phys. Rev. B, **67**, 045324 (2003).
62. "Spin Polarized Pumping in a Double Quantum Dot", E. Cota, R. Aguado, C. E. Creffield and G. Platero, Nanotechnology,**13**, 1-5 (2003).
63. "Dynamical instability of electric field domains in ac-driven superlattices", Rosa López, David Sánchez and Gloria Platero, Phys. Rev. B, **67**, 035330 (2003).
64. "Coherence and Localization in AC-Driven Quantum Dots", C.E. Creffield and G. Platero, Microelectronics Journal, **35**, 19-22 (2004).
65. "Non-Linear spin transport in magnetic semiconductor superlattices", M. Béjar, D. Sánchez, G. Platero and A.H. MacDonald, J. of Magnetism and Magnetic Mat., **272-276**, 1547 (2004).

66. "Localization of Interacting Electrons in Quantum Dot Arrays Driven by an ac-Field", C. E. Creffield and G. Platero, *Phys. Rev. B.*, **69**, 165312 (2004).
67. "Shot Noise in strongly correlated double quantum dots", R. López, R. Aguado and G. Platero, *Phys. Rev. B*, **69**, 235305 (2004).
68. REVIEW: "Photo-assisted Transport in Nanostructures", G. Platero and R. Aguado, *Physics Reports*, **395**, 1-157 (2004).
69. "Charge Transport Through Open, Driven Two-level Systems with Dissipation", T.Brandes, R. Aguado and G. Platero, *Phys. Rev. B.*, **69**, 205326 (2004).
70. "AC-Driven Double Quantum Dots as Spin Pumps and Spin Filters", E. Cota, R. Aguado and G. Platero, *Phys. Rev. Lett.*, **94**, 107202 (2005).
71. "Zero-Resistance States in the Irradiated 2D Electron Gas at Small Magnetic Fields", J. Iñarrea and G. Platero, *Phys. Rev. Lett.*, **94**, 016806 (2005).
72. "Microwave induced zero resistance states on 2D electron gas: theoretical explanation and temperature dependence", J. Iñarrea and G. Platero, *Microelectronics Journal*, **36**, 334-337 (2005).
73. "Erratum: AC Driven Double Quantum Dots as Spin Pumps and Spin Filters", E. Cota, R. Aguado and G. Platero, *Phys. Rev. Lett.*, **94**, 229901 (2005).
74. "Temperature effects on microwave-induced resistivity oscillations and zero-resistance states in two-dimensional electron systems", J. Iñarrea and G. Platero, *Phys. Rev. B*, **72**, 193414 (2005).
75. "AC-Driven Double Quantum Dots as Spin Pumps and Spin Filters", E. Cota, R. Aguado and G. Platero, *Phys. Rev. Lett.*, **94**, 229901 (2005).
76. "Spin Filter effect in an AC driven double quantum dot", R. Sánchez, E. Cota, R. Aguado and G. Platero, *Physica E, Low-dim. Systems and Nanostructures* **34**, 405 (2006)
77. "Photon-assisted tunneling in ac driven double quantum dot spin pumps", R. Sánchez, G. Platero, R. Aguado and E. Cota, *Phys. Stat. Solidi (a)*, **203**, 1154 (2006).
78. "Spin blockade removal in a double quantum dot via Hyperfine interaction", J. Iñarrea, G. Platero and A.H. MacDonald, *Physica E, Low-dimensional Systems and Nanostructures*, **34**, 429-432 (2006).
79. "Effect of magnetic field on spin blockade lifting of a weakly coupled quantum dot", J. Iñarrea, G. Platero and A. H. MacDonald, *Phys. Stat. Solidi (a)*, **203**, 6, 1148-1153, (2006).
80. "Temperature and magnetic field dependence of radiation-induced magneto-resistance oscillations in a 2D electron gas", J. Iñarrea and G. Platero, *Phys. Stat. Solidi (a)*, **203**, 6, 1188-1193, (2006).
81. " From zero resistance states to absolute negative conductivity in microwave irradiated two-dimensional electron systems", J. Iñarrea and G. Platero, *Appl. Phys. Lett.*, **89**, 052109, (2006).
82. "Spin Filtering through excited states in double quantum dots pumps", R. Sánchez, E. Cota, R. Aguado and G. Platero, *Phys. Rev. B*, **74**, 35326 (2006).

83. "Removing Spin Blockade by Photo-assisted Tunneling in Double Quantum Dots, R. Sánchez, G. Platero, R. Aguado and E. Cota, *Phys. Stat. Solidi (b)*, **243**, No 15, 3932 (2006).
84. "Spin-dependent transport through magnetic nanojunctions", K. Walczak and G. Platero, *Central European Journal of Physics*, **4**, 30-41 (2006).
85. "Phonon assisted transport through a double quantum dot: magnetic Field dependence in a spin blockade regime", J. Iñarrea, G. Platero and A. H. McDonald, *Phys. Stat. Solidi (c)*, **3**, 3774 (2006).
86. "Magnetoresistivity Modulated Response in Bichromatic Microwave Irradiated 2D Electron Systems", J. Iñarrea and G. Platero, *Appl. Phys. Lett.*, **89**, 172114 (2006).
87. " Interplay of acoustic phonons and Overhauser interaction in spin blockade removal in double quantum dots ", J. Iñarrea, G. Platero and A. H. McDonald, *Phys. Status Solidi (c)*, **4**, (2) 469 (2007).
88. "Resonance Fluorescence in Transport through Quantum Dots: Noise Properties", R. Sánchez, G. Platero, and T. Brandes, *Phys. Rev. Lett.* **98**, 146805 (2007).
89. "Multi-quantum Well Oscillator", L.L. Bonilla, R. Escobedo, M. Carretero and G. Platero, *Appl. Phys. Lett.*, **91**, 092102 (2007).
90. "Polarization Immunity of Magneto-resistivity response under microwave excitation", J. Iñarrea y G. Platero, *Phys. Rev. B*, **76**, 073311 (2007).
91. "Electronic Transport through a Double Quantum Dot in the Spin-Blockade Regime: Theoretical Models", J. Iñarrea, G. Platero and A. H. MacDonald, *Phys. Rev. B*, **76**, 085329 (2007).
92. "Hysteretic behavior in weakly coupled double-dot transport in the spin blockade regime", J. Iñarrea, C. López-Monís, A.H. MacDonald and G. Platero, *App. Phys. Lett.*, **91**, 252112 (2007).
93. "New emerging effect in Microwave-induced resistivity oscillations in 2D electron systems: Bichromatic radiation, Anharmonicity and Polarization immunity", J. Iñarrea and G. Platero, *Physica E, Low-dim. Systems and Nanostructures* **40**, 1902-1905 (2008).
94. "Electron Spin Resonance in Double Quantum Dots", R. Sánchez, C. F. López-Monís, J. Iñarrea and G. Platero, *Physica E, Low-dim. Systems and Nanostructures* **40**, 1457 (2008).
95. "Multi-quantum well spin polarized current oscillator", M. Carretero, R. Escobedo, L. L. Bonilla and G. Platero, *Physica E, Low-dim. Systems and Nanostructures*, **40**, 1099-1101 (2008).
96. "Dynamical nuclear polarization in double quantum dots induced by Hyperfine interaction", J. Iñarrea, C. López-Monís, G. Platero and A.H. MacDonald, *Physica E, Low-dim. Systems and Nanostructures*, **40**, 1189 (2008).
97. "Transport in an ac-driven triple dot quantum shuttle", I. Maldonado, J. Villavicencio, E. Cota and G. Platero, *Physica E, Low-dim. Systems and Nanostructures*, **40**, 1105 (2008).
98. "Shot Noise in Spin Pumps", R. Sánchez, F.J. Kaiser, S. Kohler, P. Hanggi and G. Platero, *Physica E, Low-dim. Systems and Nanostructures*, **40**, 1276 (2008).

99. "Phonon Emission in Two Levels Quantum Dots", R. Sánchez, G. Platero and T. Brandes, *Physica E, Low-dim. Systems and Nanostructures*, **40**, 1157 (2008).
100. "Self-Sustained Current Oscillations in a Multi-Quantum Well Spin Polarized Structure with Normal Contacts", R. Escobedo, M. Carretero, L. L. Bonilla, G. Platero, *Phys. Stat. Solidi a*, **205**, No. 6, 12701275 (2008).
101. "Electron bunching in stacks of coupled quantum dots", R. Sánchez, S. Kohler, P. Hanggi and G. Platero, *Phys. Rev. B*, **77**, 035409 (2008).
102. "Double-dot transport in the spin blockade regime", Gloria Platero and Jesús Iñarrea, *HAIT Journal of Science and Engineering* **5**, 243 (2008).
103. "Self-Sustained Spin-Polarized Current Oscillations in Diluted Magnetic Semiconductor Superlattices ", R. Escobedo, M. Carretero, L.L. Bonilla and G. Platero, *IEEE transactions on magnetics*, **44**, NO. 11, 2662 (2008).
104. "Coherent spin rotations in open driven double quantum dots", R. Sánchez, C. López-Monís and G. Platero, *Phys. Rev. B*, **77**, 165312 (2008)
105. "Tunnel spectroscopy in ac-driven quantum dot nano-resonators", J. Villavicencio, I. Maldonado, R. Sanchez, E. Cota, and G. Platero, *Appl. Phys. Lett.*, **92**, 192102 (2008).
106. "Spin correlations in spin blockade", R. Sánchez, S. Kohler and G. Platero, *New Journal of Phys.* **10**, 115013 (2008).
107. "Weiss oscillations modulated by Microwave Radiation", J. Iñarrea and G. Platero, *IEEE transactions on magnetics*, **44**, 11, (2008).
108. "Role of Dynamic Nuclear Polarization on the transport through weakly coupled double quantum dots", J. Iñarrea and G. Platero, *J. Phys. D: Appl. Phys.* **41**, 195104 (2008).
109. "Effect of an in-plane magnetic field on microwave-assisted magneto-transport in a two-dimensional electron system", J. Iñarrea and G. Platero, *Phys. Rev. B*, **78**, 193310 (2008).
110. "Overhauser Field-induced electron transport through weakly coupled double quantum dots", J. Iñarrea, A. H. MacDonald, C. López-Monís, and G. Platero, *Phys. Stat. Solidi (a)* **205**, No. 6, 1266-1269 (2008).
111. "Driving Weiss oscillations to zero resistance states by microwave Radiation", J. Iñarrea and G. Platero, *Appl. Phys. Lett.*, **93**, 062104 (2008).
112. "Resonance Fluorescence in driven quantum dots: Electron and photon correlations", R. Sánchez, G. Platero, and T. Brandes, *Phys. Rev. B*, **78**, 125308 (2008).
113. "Selfsustained spin-polarized current oscillations in multi-quantum well structures", R. Escobedo, M. Carretero, L. L. Bonilla and G. Platero, *New Journal of Phys.*, **11**, 013033 (2009).
114. "Tunable nuclear Polarization with external DC Fields in weakly coupled double quantum dots", J. Iñarrea, C. López-Monís and G. Platero, *Appl. Phys. Lett.*, **94**, 252106 (2009).
115. "Microwave magneto-absorption in 2D electron systems", J. Iñarrea and G. Platero, *Appl. Phys. Lett.*, **95**, 162106 (2009).

116. "Magneto-switching of current oscillations in diluted magnetic semiconductor nanostructures", R. Escobedo, M. Carretero, L.L. Bonilla, G. Platero, Phys. Rev. B, **80**,155202 (2009).
117. "Electronic triplet-singlet transition probability in a double-quantum-dot system: Analogy with the double-slit experiment", F. Domínguez and G. Platero, Phys. Rev. B, Rapid Comm., **80**, 201301 (2009).
118. "Electron Spin Resonance in Triple Quantum Dots Interferometers", M. Busl, R. Sánchez and G. Platero, Physica E, Low-dim. Systems and Nanostructures, **42**, 830 (2010)
119. "Spin Dynamics in Double Quantum Dots in the Spin Blockade Regime", M. Busl, C. López-Monís, R. Sánchez, J. Iñarrea and G. Platero, Physica E, Low-dim. Systems and Nanostructures, **42**, 643 (2010).
120. "Phase diagrams and switching of voltage and magnetic Field in dilute magnetic semiconductor nanostructures", R. Escobedo, M. Carretero, L.L. Bonilla and G. Platero, Phys. Status Solidi RRL **4**, No. 34, 7678 (2010).
121. "Control of spin blockade by ac magnetic Fields in triple quantum dots", M. Busl, R. Sánchez, and G. Platero, Phys. Rev. B Rapid Comm, **81**, 121306 (2010).
122. "Role of an in-plane field in 2D magneto-transport assisted by microwaves", J. Iñarrea and G. Platero, Physica E, **42**,1073 (2010).
123. "Transport properties of a molecule embedded in an Aharonov-Bohm interferometer", J. S. Lim, R. López, G. Platero, P. Simon, Phys. Rev. B, **81**, 165107 (2010).
124. "Microwave-induced resistance oscillations versus magneto-absorption in two-dimensional electron systems: role of temperature", J. Iñarrea and G. Platero, Nanotechnology, **21**, 315401 (2010).
125. "Electron bunching in triple quantum dot interferometers", F. Domínguez, G. Platero and S. Kohler, Chemical Physics, **375**, 234 (2010)
126. "Coherent control of interacting particles using dynamical and Aharonov-Bohm phases", C. E. Creffield and G. Platero, Phys. Rev. Lett., **105**, 086804 (2010).
127. "Spin-polarized currents in double and triple quantum dots driven by ac magnetic fields", M. Busl y G. Platero, Phys. Rev. B, **82**, 205304 (2010)
128. "Quasi-energy spectrum and tunneling current in ac-driven triple quantum dot shuttles", J. Villavicencio, I. Maldonado, E. Cota and G. Platero, New Journal of Physics, **13**, 023032 (2011).
129. "Dynamical nuclear spin polarization induced by electronic current through double quantum dots", C. López-Monís, J. Iñarrea and G. Platero, New Journal of Physics, **13**, 053010 (2011).
130. "Microwave-induced resistance oscillations and zero-resistance states in two-dimensional electron systems with two occupied subbands", J. Iñarrea and G. Platero, Phys. Rev. B, **84**, 075313 (2011).
131. "Phonon-mediated decoherence in triple quantum dot interferometers", F. Domínguez, S. Kohler and G. Platero, Phys. Rev. B, **83**, 235319 (2011).

132. “Charge localization and dynamical spin locking in double quantum dots driven by ac magnetic fields”, A. Gómez-León and G. Platero, *Phys. Rev. B*, **84**, 121310(R) (2011).
133. “Triple Quantum Dots as Charge Rectifiers”, M. Busl and G. Platero, *J. Phys. Condens. Matter*, **24**, 154001 (2012).
134. “Transport blocking and topological phases using ac-magnetic fields”, A. Gómez-León and G. Platero, *Phys. Rev. B*, **85**, 245319 (2012).
135. “Limit cycles and chaos in the current through a quantum dot”, C. López-Monís, C. Emary, G. Kiesslich, G. Platero, and T. Brandes, *Phys. Rev. B*, **85**, 045301 (2012).
136. “Dynamical polarizability of graphene irradiated by circularly polarized ac electric fields”, M. Busl, G. Platero and A.P. Jauho, *Phys. Rev. B*, **85**, 155449 (2012).
137. “Helical edge states coupled to a spin bath: Current-induced magnetization”, M. Lunde and G. Platero, *Phys. Rev. B*, **86**, 035112 (2012) (featured)
138. “Topological phases in adiabatic and non-adiabatic driven systems”, A. Gómez-León and G. Platero, *Phys. Rev. B*, **86**, 115318 (2012).
139. “On the Dynamical detection of Majorana fermions in current-biased nanowires”, F. Domínguez, F. Hassler and G. Platero, *Phys. Rev. B*, **86**, 140503(R) (2012).
140. “Double coupled electron shuttle”, M. Prada and G. Platero, *Phys. Rev. B* **86**, 165424 (2012).
141. “Steady-State Coherent Transfer by Adiabatic Passage”, J. Huneke, G. Platero and S. Kohler, *Phys. Rev. Lett.*, **110**, 036802 (2013).
142. “Bipolar spin blockade and coherent state superpositions in a triple quantum dot”, M. Busl, G. Granger, L. Gaudreau, R. Sánchez, A. Kam, M. Pioro-Ladrière, S. A. Studenikin, P. Zawadzki, Z. R. Wasilewski, A. S. Sachrajda, and G. Platero, *Nature Nanotech.*, **8**, 262 (2013).
143. “Dark Bell states in tunnel-coupled spin qubits”, Rafael Sánchez and Gloria Platero, *Physical Rev. B (Rapid Comm.)*, **87**, 081305(R) (2013)
144. “Effects of noise on hysteresis and resonance width in graphene and nanotubes resonators”, O. G. Cantu Ros, G. Platero, L. L. Bonilla, *Physical Rev. B*, **87**, 235424 (2013).
145. “Floquet-Bloch theory and topology in periodically driven lattices”, A. Gómez-León and G. Platero, *Phys. Rev. Lett.* **110**, 200403 (2013).
146. “Temperature dependent dynamical nuclear polarization bistabilities in double quantum dots in the spin-blockade regime”, A. M. Lunde, C. López-Monís, I. A. Vasiliadou, L. L. Bonilla and G. Platero, *Phys. Rev. B*, **88**, 035317 (2013).
147. “Hyperfine Interactions in two-dimensional HgTe topological Insulators”, A. M. Lunde and G. Platero, *Phys. Rev. B*, **88**, 115411 (2013).
148. “Realizing Broad Bands of Strong Nonlinear Coupling in Nano-Electromechanical Energy Harvesters”, C. Kim, M. Prada, G. Platero and R. H. Blick, *Phys. Rev. Lett.* (highlight) **111**, 197202 (2013).

149. erratum: “Theoretical approach to microwave induced zero resistance states in 2D electron systems”, J. Iñarrea and G. Platero, Phys. Rev. Lett., **111**, 229903 (2013).
150. “Spin-orbit effects in a triple quantum dot shuttle”, J. Villavicencio, Irene Maldonado, E. Cota and G. Platero Phys. Rev. B, **88**, 245305 (2013).
151. “Merging of Dirac points and Floquet topological transitions in AC driven Graphene”, P. DelPlace, A. Gómez-León and G. Platero, Phys. Rev. B, **88**, 245422 (2013).
152. “Uni-directional direct current in coupled nanomechanical resonators by tunable symmetry breaking”, M. Prada, G. Platero and D. Pfannkuiche, Phys. Rev. B, **89**, 045426 (2014).
153. “Engineering anomalous quantum Hall plateaus and antichiral states with ac fields”, A. Gómez-León, P. DelPlace and G. Platero, Phys. Rev. B, **89**, 205408 (2014).
154. “Long-Range Spin Transfer in Triple Quantum Dots”, R. Sánchez, G. Granger, L. Gaudreau, A. Kam, M. Pioro-Ladrière, S. A. Studenikin, P. Zawadzki, A. S. Sachrajda, and G. Platero, Phys. Rev. Lett., **112**, 176803 (2014).
155. “Super-exchange blockade in triple quantum dots”, R. Sánchez, F. Gallego-Marcos and G. Platero, Phys. Rev. B (Rapid Comm.), **89**, 161402, (2014).
156. “Nonequilibrium relaxation transport of ultracold atoms”, F. Gallego-Marcos, G. Platero, C. Nietner, G. Schaller, and T. Brandes, Phys. Rev. A, **90**, 033614 (2014).
157. “Corrigendum: Dynamical nuclear spin polarization induced by electronic current through double quantum dots” (2012 New J. Phys. 13 053010), C. López-Monís, J. Iñarrea and G. Platero, New Journal of Phys., **16**, 109502 (2014).
158. “Floquet engineering of long-range p-wave superconductivity”, M. Benito, A. Gómez-León, V. M. Bastidas, T. Brandes and G. Platero, Physical Rev. B, **90**, 205127 (2014).
159. “Photon assisted long-range tunneling”, F. Gallego-Marcos, R. Sánchez and G. Platero, Journal of Applied Physics, **117**, 112808 (2015).
160. “Floquet Majorana Fermions in superconducting quantum dots”, M. Benito and G. Platero, Physica E, **74**, 608 (2015), (devoted to Prof. M. Buttiker).
161. “Radiation-induced resistance oscillations in a 2D hole gas: a demonstration of a universal effect”, J. Iñarrea, G. Platero, J Phys Condens Matter. **27**, 415801 (2015).
162. “Fourier transform analysis of irradiated Weiss oscillations”, J. Iñarrea and G. Platero, EPL, **109**, 67001 (2015).
163. “Coupled Landau-Zener-Stückelberg Quantum Dot Interferometers”, F. Gallego-Marcos, R. Sánchez and G. Platero, Phys. Rev. B, **93**, 075424 (2016).
164. “Long-range doublon transfer in a dimer chain induced by topology and ac fields”, M. Bello, C.E. Creffield and G. Platero, Scientific Rep., **6**, 22562 (2016).
165. “Channel Blockade in a Two-Path Triple Quantum Dot System”, M. Kotzian, F. Gallego Marcos, G. Platero, and R.J. Haug, Phys. Rev. B, **94**, 035442 (2016).
166. “Generic helical edge states due to Rashba spin-orbit coupling in a topological insulator”,

- L. Ortiz, R. Molina, G. Platero, M. Lunde, Phys. Rev. B, **93**, 205431 (2016).
167. “Edge Topological Blockade of Transport in Quantum Dot Arrays”, M. Benito, M. Niklas, G. Platero, S. Kohler, Phys. Rev. B, **93**, 115432 (2016).
168. “Topological instabilities in ac-driven bosonic systems”, G. Engelhardt, M. Benito, G. Platero, T. Brandes, Phys. Rev. Lett., **117**, 045302 (2016).
169. “Dissipative Long-Range Entanglement Generation between Electronic Spins”, M. Benito, M.J.A. Schuetz, J. I. Cirac, G. Platero and G. Giedke, Phys. Rev. B, **94**, 115404 (2016).
170. “Transport, shot noise, and topology in AC-driven dimer arrays”, M. Niklas, M. Benito, S. Kohler and G. Platero, Nanotechnology, **27**, 454002 (2016).
171. “Coherent Long-Range Thermoelectrics in Nonadiabatic Driven Quantum Systems”, F. Gallego-Marcos and G. Platero, Phys. Rev. B, **95**, 075301 (2017).
172. “Josephson junction dynamics in the presence of 2π - and 4π -periodic supercurrents”, F. Domínguez, O. Kashuba, E. Bocquillon, J. Wiedenmann, R. S. Deacon, T. M. Klapwijk, G. Platero, L. W. Molenkamp, B. Trauzettel, and E. M. Hankiewicz, Phys. Rev. B, **95**, 195430 (2017).
173. “Topologically enforced bifurcations in superconducting circuits”, G. Engelhardt, M. Benito, G. Platero, and T. Brandes, Phys. Rev. Lett., **118**, 197702 (2017).
174. “Sublattice Dynamics and Quantum State Transfer of Doublons in 2D Lattices”, M. Bello, C.E. Creffield and G. Platero, Phys. Rev. B, **95**, 094303 (2017).
175. “Doublon Lifetimes in dissipative environments”, M. Bello, G. Platero and S. Kohler, Phys. Rev. B, **96**, 45408. (2017).
176. “Chiral Maxwell demon in a quantum Hall system with a localized impurity”, G. Rosselló, R. López, and G. Platero, Phys. Rev. B, **96**, 075305 (2017).
177. “Random-walk topological transition revealed via electron counting”, G. Engelhardt, M. Benito, G. Platero, G. Schaller and T. Brandes, Phys. Rev. B, **96**, 241404(R), (2017).
178. “Signatures of a 4π -periodic supercurrent in the voltage response of capacitively shunted topological Josephson junctions”, J. Picó-Cortés, F. Domínguez, and G. Platero, Phys. Rev. B, **96**, 125438 (2017).
179. “Thermoelectric performance of topological boundary modes”; S. Böhlting, G. Engelhardt, G. Platero and G. Schaller, Phys. Rev. B, **98**, 035132 (2018).
180. “Fast long-range charge transfer in quantum dot arrays”, Y. Ban, X. Chen and G. Platero, Nanotechnology, **29**, 505201 (2018).
181. “Erratum: Doublon lifetimes in dissipative environments [Phys. Rev. B 96, 045408 (2017)], M. Bello, G. Platero, and S. Kohler, Phys. Rev. B **100**, 169905 (2019).
182. “Interplay between long-range hopping and disorder in topological systems”, B. Pérez-González, M. Bello, A. Gómez León and G. Platero, Phys. Rev. B, **99**, 035146 (2019).
183. “Direct transfer of two-electron quantum states in ac-driven triple quantum dots”, J. Picó-Cortés, F. Gallego-Marcos and G. Platero, Phys. Rev. B, **99**, 155421 (2019).

184. “Unconventional quantum optics in topological waveguide QED”, M. Bello, G. Platero, I. Cirac and A. González-Tudela, *Science Advances*, vol **5**, 7, eaaw0297 (2019).
185. “Floquet engineering of Dirac cones on the surface of a topological insulator”, A. Díaz-Fernández, E. Díaz, A. Gómez-León, G. Platero and F. Domínguez-Adame, *Phys. Rev. B*, **100**, 075412 (2019).
186. “Simulation of chiral topological phases in driven quantum dot arrays”, B. Pérez-González, M. Bello, G. Platero, A. Gómez-León, *Phys. Rev. Lett.*, **123**, 126401 (2019).
187. “Discontinuities in driven spin-boson systems due to coherent destruction of tunneling: breakdown of the Floquet-Gibbs distribution”, G. Engelhart, G. Platero and J. Cao, *Phys. Rev. Lett.*, **123**, 120602 (2019).
188. “Spin entangled state transfer in quantum dot arrays: Coherent adiabatic and speed-up protocols”, Y. Ban, X. Chen, S. Kohler and G. Platero, *Adv Quantum Tech.*, **2**, 1900048 (2019).
189. “Topology and Interactions in the Photonic Creutz and Creutz-Hubbard Ladders”, J. Zurita, C.E. Creffield, G. Platero, *Adv. Quantum Technol*, **3**, 1900105 (2020).
190. “Designing adiabatic time-evolution from high frequency sources”, A. Gómez León and G. Platero, *Phys. Rev. Research*, **2**, 033412 (2020).
191. “Rashba coupling and spin switching through surface states of Dirac semimetals”, Y. Baba, F. Domínguez-Adame, G. Platero and R. A. Molina, *New J. of Phys.*, **23**, 023008 (2021).
192. “Radiation-induced magnetoresistance oscillations with massive Dirac fermions”, J. Iñarrea and G. Platero, *New J. of Phys.*, **23**, 063004 (2021).
193. “Tunable zero modes and symmetries in flat-band topological insulators”, J. Zurita, C. E. Creffield, G. Platero, *Quantum*, **5**, 591 (2021).
194. “Dynamical second-order noise sweet-spots in resonantly driven spin qubits”, Jordi Picó-Cortés and Gloria Platero, *Quantum*, **5**, 607 (2021).
195. “ 4π -periodic supercurrent tuned by an axial magnetic flux in topological insulator nanowires”, R. Fischer, J. Picó-Cortés, W. Himmler, G. Platero, M. Grifoni, D. A. Kozlov, N. N. Mikhailov, S. A. Dvoretzky, C. Strunk, D. Weiss, *Phys. Rev. Research*, **4**, 013087, (2022).
196. “Spin many-body phases in standard and topological waveguide QED simulators”, M. Bello, G. Platero, and A. González-Tudela, *PRX Quantum*, **3**, 010336 (2022).
197. “Photovoltage oscillations in encapsulated graphene”, J. Iñarrea and G. Platero, *Sci. Rep.*, **12**, 5157 (2022).
198. “Entangling nuclear spins in distant quantum dots via an electron bus”, M. Bello, M. Benito, M. J. A. Schuetz, G. Platero, G. Giedke, *Phys. Rev. Appl.*, Ed. Sugg., **18**, 014009 (2022).
199. “Topological detection in cavity QED”, B. Pérez-González, A. Gómez-León, G. Platero, *Phys. Chem. Chem. Phys.*, **24**, 15860 (2022).

200. “Proposal for Detection of the $0'$ and π' Phases in Quantum-Dot Josephson Junctions”, M. Lee, R. Lopez, H. Q. Xu, and G. Platero, *Phys. Rev. Lett.*, **129**, 207701 (2022). Ed. Suggestion.
201. “Quantum control of two-qubit hole spin gates”, D. Fernández-Fernández, Y. Ban, and G. Platero, *Phys. Rev. Appl.*, **8**, 054090 (2022).
202. “Fast quantum transfer mediated by topological domain walls”, J. Zurita, C.E. Creffield, G. Platero, *Quantum*, **7**, 1043 (2023).
203. “Topological synchronization of quantum van der Pol oscillators”, C. W. Wächtler, G. Platero, *Phys. Rev. Research* **5**, 023021 (2023).
204. “Photo-assisted spin transport in double quantum dots with spin-orbit interaction”, D. Fernández-Fernández, J. Picó-Cortés, S. Vela-Liñán and G. Platero, *J. Phys. Mater.* **6**, 034004 (2023), invited: “Focus on Women's Perspectives in Quantum Materials”.
205. When matter and information merge into “Quantum”, R. Aguado, A. Cervera-Lierta, A. Correia, S. de Franceschi, R. Díez Muiño, J.J. García Ripoll, A. Levi-Yeyati, G. Platero, S. Roche and D. Sánchez-Portal, *Commun Phys* **6**, 266 (2023).
206. “Optimizing edge state transfer in a Su-Schrieffer-Heeger chain via hybrid digital-analog strategies”, Sebastián V. Romero, Xi Chen, Gloria Platero, Yue Ban, *Physical Rev. App.*, **21**, 034033 (2024).
207. “Coherent states in microwave-induced resistance oscillations and zero-resistance states”, J. Iñarrea and G. Platero, *Phys. Rev. Research*, **6**, 013340 (2024)
208. “Anomalous negative magnetoresistance in quantum-dot Josephson junctions with Kondo correlations”, M. Deng, C. Yu, G. Huang, R. López, P. Caroff, S. Ghalamestani, K. Thelander, G. Platero, and H. Xu, *Science China Physics, Mechanics & Astronomy (Editor’s Focus) (SCPMA)*, **67**, No 8, 280362 (2024).
209. “Non-equilibrium cotunneling in interacting Josephson junctions”, J. Picó-Cortés, G. Platero, A. Donarini and M. Grifoni, *Phys. Rev B*, **110**, 125418 (2024)
210. “Exploring Ground States of Fermi-Hubbard Model on Honeycomb Lattices with Counter-diabaticity,” J. Tang, R. Xu, Y. Ding, X. Xu, Y. Ban, M. Yung, A. Pérez-Obiol, G. Platero, X. Chen, *npj Quantum Materials*, **9**, 87 (2024)
211. “Quantum origin of anomalous Floquet phases in cavity-QED materials”, B. Pérez-González, G. Platero, A. Gómez-León, *Commun. Phys.* **7**, 419 (2024).
- 212 “Photon-resolved Floquet theory. I. Full counting statistics of the driving field in Floquet systems”, Georg Engelhardt, JunYan Luo, Victor M. Bastidas, and Gloria Platero, *Phys Rev. A*, **110**, 063707 (2024)
213. “Photon-resolved Floquet theory. II. Open quantum systems”, Georg Engelhardt, JunYan Luo, Victor M. Bastidas, G. Platero, *Phys. Rev. A*, **110**, 063708 (2024)
214. “Hole Flying Qubits in Quantum Dot Arrays”, D. Fernández-Fernández, Y. Ban and G. Platero, *Quantum* **8**, 1533 (2024)

215. "Multipartite entanglement distribution in a topological photonic network", J. Zurita, A. Agustí-Casado, C.E. Creffield and G. Platero, *Quantum*, **9**, 1625 (2025)

216. "Light-matter correlations in Quantum Floquet engineering", B. Pérez-González, G. Platero, A. Gómez-León, *Quantum*, **9**, 1633 (2025).

Submitted:

Hidden topology in flat-band topological insulators: strong, weak and square-root topological states, J. Zurita, C. E. Creffield, G. Platero, submitted, arXiv:2410.14512v1

Other submitted publication:

Women for Quantum Manifesto of Values, A.Beige, A. Predojevic, A. Metelmann, A. Sanpera, C. Macchiavello, C. P. Koch, C. Silberhorn, C. Tonitelli, D. Bruss, E. Ercolessi, E. Paladino, F. ferlaino, G. Ferrini, G. Platero, I. Fuentes et al. , arXiv:2407.02612, Physics.soc-ph quantum-ph

List of Publications in Books and Collective Publications:

1. "Effect of uniaxial stress on the electronic states in quantum wells and superlattices", G. Platero, M. Altarelli, *Physics of Semiconductors* (World Sci. Pub.) Ed. O. Engstrom, 1, 633-636 (1987).

2. "Resonant transverse magneto-tunnelling through double barrier systems", G. Platero, C. Tejedor, L. Brey, P. Schulz, NATO ASI SERIES, "Science and Engineering of 1- and 0-Dimensional Semiconductors", ed. S. P. Beaumont y C. M. Sotomayor-Torres, (Plenum Press), NATO ASI series, Serie B, 214, 325 (1990) Invited contribution.

3. "Magneto-tunnelling in semiconductor microstructures", C. Tejedor, L. Brey, G. Platero, P. Schulz, NATO ASI SERIES, "Spectroscopy of semiconductor microstructures", ed. G. Fasol, A. Fasolino, P. Lugi, 206, 407-423 Plenum Press, (1989), Invited contribution

4. "Magneto-tunnelling in semiconductor nanostructures". C. Tejedor, G. Platero and P. Schulz. *Physics of Semiconductors*, Ed. E. Anastassakis and J. D. Joannopoulos (World Scientific Publ. Singapore), 1305-1312 (1990).

5. "Excitons in quantum wells: the 2D-3D transition", G. Platero and M. Altarelli. *Physics of Semiconductors*, Ed. E. Anastassakis and J. D. Joannopoulos (World Scientific Publ. Singapore), 1489-1492 (1990).

6. "Interband electronic transport in heterostructures". Maria A. Davidovich, E. V. Anda, C. Tejedor and G. Platero. *Physics of Semiconductors*, Ed. E. Anastassakis and J. D. Joannopoulos (World Scientific Publ. Singapore), 1649-1652 (1990).

7. "Resonant Interband Tunnelling in Semiconductor Heterostructures ", M. A. Davidovich, E.V. Anda, C. Tejedor and G. Platero, NATO ASI SERIES, Serie B, ed. L.L. Chang, E. E. Méndez and C. Tejedor, 277, 61-70 (1991). Invited contribution.

8. "Tunnelling in Semiconductor Microstructures in the presence of a Transverse Magnetic Field ", G. Platero and C. Tejedor, NATO ASI SERIES, Serie B, ed. L. L. Chang, E.E. Méndez and C. Tejedor, (Plenum Press, New York), 277, 265-274 (1991). Invited contribution

9. "Determination of the hole effective magnetic moments from the light hole splitting in quantum wells in a parallel magnetic Field", A. Fasolino, G. Platero, M. Potemski, J. C. Maan, K. Ploog and G. Weimann, in "The Applications of High Magnetic Fields in Semiconductors", Ed. by G. Landwehr, Springer Verlag, 101, 537-540 (1992).
10. "Sequential and coherent resonant magneto-tunnelling", G. Platero and C. Tejedor, in "The Applications of High Magnetic Fields in Semiconductors", Ed. by G. Landwehr, Springer Verlag, 101, 664-667 (1992).
11. "Magneto-tunnelling in Semiconductor Heterostructures", C. Tejedor, P. Schulz, G. Platero and L. Brey, "Semiconductor Physics ", ed. J.R. Leite, A. Fazzio, A. S. Chaves (World Scientific. Singapore) 123 (1992).
12. "Magnetotunnelling Current Through Semiconductor Microstructures". G. Platero and C. Tejedor, Surface Science, Springer Proceedings in Physics, Ed. F.A. Ponce and M. Cardona, Springer-Verlag, 463-468 (1991). Invited contribution
13. "Effect of electron-photon coupling on the magneto-tunnelling current through a semiconductor heterostructure", J. Iñarrea and G. Platero, "High Magnetic Fields in The Physics of Semiconductors", Ed. D. Heiman, World Scientific Publ., 582-587 (1995).
14. " Photo-assisted Tunnelling through Semiconductor Nanostructures", G. Platero and J. Iñarrea, NATO ASI series, 291, 395-410 (1995). Invited contribution
15. " Resonant tunnelling through nanostructures in AC Fields", G. Platero, R . Aguado and J.Iñarrea," Quantum Transport in Semiconductor Submicron Structures", NATO ASI series, Kluwer Academic publishers, 326, 327-351 (1996). Invited contribution
16. "Quenching of bistability by photo-assisted tunnelling through a semiconductor double barrier", Jesús Iñarrea and Gloria Platero, "Hot carriers in semiconductors", ed. K. Hess, J.P. Leburton and U. Ravaioli, Plenum press, N.Y., 543-546 (1996).
17. "Position dependent AC potential versus homogeneous irradiation applied to resonant heterostructures", R. Aguado, J. Iñarrea and G. Platero, "Hot carriers in semiconductors", ed. K. Hess, J.P. Leburton and U. Ravaioli, Plenum press, N.Y., 547-550 (1996).
18. "Tunnelling current through semiconductor superlattices in AC Fields", G. Platero, R. Aguado and J. Iñarrea,"The Physics of Semiconductors", Berlin, World Scientific Publ., 2263-2266 (1996).
19. "Kondo effect in Single Electron Transistor Driven by AC Fields", R. López, R. Aguado, G. Platero and C. Tejedor. Proc. of the Conference "The Physics of Semiconductors ICPS 24", Jerusalem, ed. by D. Gershoni, World Scientific Publ., Singapore, 0434.pdf (1999).
20. "Non-linear Transport in Superlattices", G. Platero, D. Sánchez and L. L. Bonilla, Progress in Industrial Mathematics at ECMI 2000), ed. A. M. Anile, V. Capasso and A. Greco, eds. Mathematics in Industry, Springer Verlag, Berlin, 1, 372-385, (2002). Invited contribution
21. "Spin Transport in Diluted Magnetic Semiconductor Superlattices", Procc. of the international conference: "Recent Trends in Theory of Physical Phenomena in High Magnetic Fields", Ed. I.Vagner, P. Wyder, A. Maniv and M. Potemski, NATO Science series, 106, 167-181 2003. Invited contribution
22. "Non-linear Transport through Double Quantum Dots: Competition between Anti-ferromagnetism and Kondo effect", R. López, R. Aguado and G. Platero, "The Physics of

Semiconductors 2002" Proc. of the 26th International Conference ICPS, ed. by A.R. Long and J. H. Davies, Institute of Physics Publishing, Bristol and Philadelphia, 2003.

23. "Spin Transport in Magnetic Semiconductor Superlattices", M. Béjar, D. Sánchez, G. Platero and A. H. Macdonald, "The Physics of Semiconductors 2002" Proc. of the 26th International Conference ICPS, ed. by A.R. Long and J. H. Davies, Institute of Physics Publishing, Bristol and Philadelphia, 2003. Invited contribution.

24. "Localization and Spin transport in a two-electron Double Quantum Dot molecule ", E. Cota, R. Aguado, C. Creffield and G. Platero, "The Physics of Semiconductors 2002" Proc. of the 26th International Conference ICPS, ed. by A.R. Long and J. H. Davies, Institute of Physics Publishing, Bristol and Philadelphia, 2003.

25. "Electron Dynamics in AC-Driven Quantum Dots", C. E. Creffield and G. Platero, "Anderson Localization and its Ramifications, Disorder, Phase Coherence and Electron Correlations", , Lecture notes in Physics series, Springer Verlag, ed. T. Brandes and S. Kettemann, 157-173 (2003). Invited contribution

26. " Dynamical Control of Electronic States in AC-Driven Quantum Dots", C. E. Creffield, G. Platero, "The Physics of Semiconductors 2004", Proc. of the 27th International Conference, American Institute of Physics, ed. by J. Menéndez and C.G. del Valle, 772 805, (2005).

27. " AC-Driven Few Electrons Double Quantum Dots Operated as Spin Pumps and Bipolar Spin Filters", E. Cota, R. Aguado, G. Platero, "The Physics of Semiconductors 2004", Proc. of the 27th International Conference, American Institute of Physics, ed. by J. Menendez and C.G. del Valle, 772 1411, (2005).

28. "Effect of microwave multi-photon absorption on the magneto-resistivity of 2D electron systems", J. Iñarrea, G. Platero, Proceedings of the 28th International Conference on the Physics of Semiconductors, ICPS 2006, AIP. conf. Proc. 637, 773, (2007).

29. "Removing spin blockade in a double quantum dot: role of spontaneous emission of phonons", J. Iñarrea, G. Platero, Allan H. McDonald, Proceedings of the 28th International Conference on the Physics of Semiconductors ICPS 2006, AIP. conf. Proc. 893, 773, (2007).

30. "Microscopical model for Hyperfine interaction in electronic transport through double quantum dots: Spin blockade lifting", J. Iñarrea, G. Platero, A.H. MacDonald, Progress in Industrial Mathematics at ECMI 2006. Mathematics in Industry 12. L.L. Bonilla, M. A. Moscoso, G. Platero and J.M. Vega (eds), Springer Verlag, page 440 (2008).

31. Symposium: Non-Linear Charge and Spin Transport in Semiconductor Nanostructures" G. Platero, Progress in Industrial Mathematics at ECMI 2006. Mathematics in Industry 12. L.L. Bonilla, M.A. Moscoso, G. Platero and J.M. Vega (eds), Springer Verlag, page 402-403 (2008).

32. "Rabi Dynamics in Driven Tunneling Devices", R. Sánchez and G. Platero, Progress in Industrial Mathematics at ECMI 2006. Mathematics in Industry 12. L.L. Bonilla, M.A. Moscoso, G. Platero and J.M. Vega (eds), Springer Verlag, page 444 (2008).

33. "Spin Dynamics in Quantum Dots", G. Platero, J. Iñarrea, and C. López-Monís, Progress in Industrial Mathematics at ECMI 2008. Mathematics in Industry Springer Verlag, 2009.

34. "Effect of Microwave radiation on Weiss oscillations: creation and destruction of zero resistance states", J. Iñarrea and G. Platero, Proceedings of the 29th International Conference on the Physics of Semiconductors ICPS 2008, published 2009.

35. "Quenching of Microwave-induced resistance oscillations in Hall bars: role of frequency and temperature", J. Iñarrea and G. Platero, Proceedings of the 29th International Conference on the Physics of Semiconductors ICPS 2008, published 2009.
36. "Electron Spin Resonance in Triple Quantum Dots", M. Busl, R. Sánchez and G. Platero. Book eds: L. Viña, C. Tejedor, J.M. Calleja, 11th International Conference on Optics of Excitons in Confined Systems, Book series: Journal of Physics Conference Series, 210 (2010).
37. "Magneto-transport excited by linearly polarized radiation in 2D electron systems", J. Iñarrea and G. Platero, 11th International Conference on Optics of Excitons in Confined Systems, Book Editor(s): Vina, L; Tejedor, C; Calleja, JM, Book Series: Journal of Physics Conference Series Volume: 210 (2010)
38. "Square root growth in the amplitude of microwave-induced resistance oscillations for increasing power in two-dimensional electron systems", . J. Iñarrea and G. Platero, Proc. of ICPS 2010 Seoul. AIP Conf. Proc.1399, 323, (2011).
39. "Magneto-absorption and radiation-induced resistance oscillations in 2D electron systems", J. Iñarrea and G. Platero, Proc. ICPS 2010 Seoul. AIP Conf. Proc. 1399, 509, (2011).
40. "Microwave-induced resistance oscillations and zero-resistance states in 2D bilayer systems", Jesús Iñarrea and Gloria Platero Proc. EP2DS19/MSS15 (2011).
41. "Dynamical nuclear spin polarization induced by electronic current through double quantum dots", C. López-Monís, J. Iñarrea and G. Platero, Proc. EP2DS19/MSS15 (2011).
42. "Triangular triple quantum dots driven by ac magnetic fields", G. Platero, R. Sánchez and M. Busl, "Spintronics in Nanoscale Devices", Book Chapter, ed by E. Hedin and Y. Joe, Pan Stanford Publishing, 47-66 (2013).
43. Coauthor of the Chapter on Quantum Computation, CSIC, Digital & complex information, 169 pages, CSIC, 2021. ISBN: 978-84-00-10756-7, eISBN: 978-84-00-10757-4

Edited Books

- "Proc. of the XVI Sitges Conference: Statistical and Dynamical Aspects of Mesoscopic Systems", Lecture Notes in Physics, Springer Verlag, ed. by D. Reguera, G. Platero, L.L. Bonilla and M. Rubi (2000).
- "Progress in Industrial Mathematics " at ECMI 2006. Mathematics in Industry 12. Springer, Berlin 2007. L.L. Bonilla, M.A. Moscoso, G. Platero and J.M. Vega (eds).