CV (01/03/2023)

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, Theory and Simulation of Materials Department.
1997-present, 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.
1990-1997 Honorary Professor at the Autonomous University of Madrid (UAM).
1990-2005 Scientific Researcher (second level permanent position) at the ICMM.
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 Max Planck Institute for High Magnetic Fields, Grenoble (France).
1985 Postdoctoral scholarship from NATO (Max Planck Institute 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 (CSIC) of the consortium ("Unidad Asociada") CSIC-Applied Mathematics, UC3M.
Leader of the research group at the ICMM: Novel Platform and Nanodevices for Quantum Simulation and Computation: https://wp.icmm.csic.es/npqsic

Memberships of scientific societies, institutions and Platforms

Member of the European Physical Society (EPS)
Fellow of the American Physical Society (APS)
Member of the German Physical Society (DPG)
Member of the Spanish Royal Society of Physics (RSEF)
Member of the Spanish Condensed Matter Division (GEFES, RSEF)
Member of the Quantum Information Group (GEIC, RSEF)
Member of the Spanish Nanotechnology Network (Nano-Spain)
Member of the Quantum Information Network in Spain (RICE)
Member of the Association of Women Scientists and Technologists (AMIT)
Member of the Spanish Group of Women in Physics (GEMF, RSEF)
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 University of Madrid) on Nanoscience and Industrial Mathematics.

General indicators of quality of scientific production:

General indicators: Over 200 publications JCR, with more than 6600 cites, h=45 (GS), including 1 Nature Nanotechnology, 1 Review in Phys. Reports (with more than 570 cites), 18 PRL (1 "Featured in Physics", 1 "Front Page", 1 "Ed suggestion"), 1 Science Advances, 1 PRX Quantum, 78 PRB (1 editor suggestion, 9 Rapid Comm.), 2 PRR, 7 NJP, 9 APL, 5 Nanotechnology, 2 Quantum, etc… More than 40 publications in conference proceedings and book chapters. Editor of two books. Co-editor of EPL.

Six "Sexenios" (recognition of research merits every six years by the National Commission for the Evaluation of Research Activity, CNEAI.)

CV summary:

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 where I collaborated with Prof. G. Benedek. After this, I obtained a postdoctoral 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 invited to visit (research stays) 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), Ausgburg U. (Prof. Hanggi), Leibniz U. Hannover (Prof. R. Haug), Utrecht U. (Prof. C. De Morais Smith), 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 the program: "Energy and Information Transport in Non-equilibrium Quantum Systems", (August/September, 2021) with on-line participation.

I participated 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. I was Principal Investigator of 22 of them.

I have advised 14 PhD students (three more in progress), 10 of them are working in academia, 7 with permanent positions, 2 full Professors, 1 Professor W2 in Germany.

I have founded a research group at my institute on quantum transport at the nanoscale, which became recently the research group of: "New Platforms and Nanodevices for Quantum Simulation and Quantum Computation" https://wp.icmm.csic.es/npqsic/

My research topics of interest belong to Theoretical Condensed Matter and recently in the Quantum Computation and Quantum Simulation areas in the field of Quantum Nano-technologies.
In particular, my research has been focused on the theoretical analysis of charge and spin quantum transport in semiconductor nanostructures. My first works in this topic dealt with quantum electron transport in the strong interacting regime, i.e., in the Kondo regime (PRL, **81**, 4688 (1998); PRL, **89**, 136802, 2002) and the effect of spin decoherence and relaxation in the transport properties (PRB,**76**, 085329, 2007).

Later on, I devoted my effort to analyse spin qubits in quantum dots, their manipulation (PRB, Rapid Comm., **81**, 121306 (2010), PRB, Rapid Comm., **87**, 081305, 2013) and how to transfer quantum information in quantum dot arrays (Nature, Nanotech., **8**, 262, 2013; PRL **112**, 176803, 2014).

One of my main research topics has been ac-driven quantum transport in nanostructures, as for instance, spin pumping in ac driven double quantum dots (PRL, **94**, 107202, 2005). In this topic I have recently investigated different 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 in a quantum dot array by ac driving (PRB, **99**,155421, 2019).

Recently I have investigated pulse protocols both adiabatically (CTAP) and by shortcuts to adiabaticity techniques, to manipulate electron spin qubits and to transfer quantum information in quantum dot arrays (Nanotechnology, **29**, 505201, 2018); Advanced Quantum Tech., DOI: 10.1002/qute.201900048, 2019). I have extended these works to hole spin qubits, which benefit,

in comparison with electron spin qubits, from its weaker interaction with nuclear spins and therefore from its long spin decoherence time (Phys. Rev. Appl, **8**, 054090, 2022).

I was invited by the editor to write a review on time periodic Hamiltonians and Floquet theory (Phys. Rep., **395**, 1-157, 2004, with more than 570 cites).
Within this topic, later on, I have analyzed different physical systems, from quantum dots, for quantum transport and qubits manipulation as mentioned above, to two dimensional materials, as graphene (PRB, **85,** 155449, 2012; PRB, **88**, 245422, 2013; PRB, **89**, 205408, 2014) or other lattices with non-trivial topology, as different topological insulators (PRB, **100**, 075412, 2019), or the Kitaev chain (PRB, **90**, 205127, 2014)., where I have investigated the effect of the periodic field on the system properties (PRL, **123**, 120602, 2019).
For that purpose, I 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 360 cites).

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. By means of Floquet engineering, I have investigated the interplay between the topology and driving as well as the effect of interaction, and quantum interferences produced by a magnetic flux which induce localization known as Aharonov- Bohm caging (PRL, **105**, 086804, 2010; Scientific Rep., **6**, 22562, 2016; Adv. Quantum Tech., 1900105, 2019; Quantum, **5**, 591, 2021).
The possibility of transfer quantum information fast and with high fidelity, by means of topological protected states located at topological domain walls, is a fascinating problem which I have addressed recently (submitted, arXiv 2208.00797).

The impressive development of quantum dot networks fabrication and control, has motivated to propose them as quantum simulators of complex Hamiltonians. Recently, I have investigated how to simulate, in a semiconductor quantum dot array, a Hamiltonian with non-trivial topology which can be imprinted by Floquet engineering (PRL, **123**, 126401, 2019).

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 (PRL,**118**, 197702, 2017), or ac-driven bosonic systems, which present instabilities of topological origin (PRL.,**117**, 045302, 2016). Also, I have recently investigated topological synchronization of quantum van der Pol oscillators (submitted, arXiv:2302.12272).

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 (PRB, **86**, 140503(R), 2012; PRB, **95**, 195430, 2017; PRB, **96**,125438, 2017; PRR, **4**,013087, 2022).

Recently, many concepts of topology in topological materials have been exported to Photonics. I have recently collaborated with the IFF (CSIC) and MPI (Garching), 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, we have performed an extensive analysis of numerous many-body phases reachable in a waveguide QED quantum simulator (PRX, Quantum, **3,** 010336, 2022).

I have also investigated, through the theoretical analysis of magneto transport, and motivated by recent experimental evidence, the interplay between Kondo effect and superconductivity in hybrid superconductor /semiconductor QDs systems (PRL, Ed. Suggestion, **129**, 207701, 2022).

One topic of my present research is to investigate a fermionic system coupled to a quantum

cavity and how the cavity transmission acts as a sensor of the topological properties of the system (Phys. Chem. Chem. Phys. **24**,15860 (2022)). The differences between quantum and classical treatment of the light-matter interaction is investigated in a recent work (Light-matter correlations in Quantum Floquet engineering, submitted, arXiv:2302.12290).

Distinctions

Elected Member of the IUPAP, "International Union of Pure and Applied Physics", committee C8: "Semiconductor Physics", from 2017 and elected Secretary of the C8 committee from 2021.

I have got a Distinction by the CSIC for the scientific merits 2017-2018.

Nominated for the presidency of the European Physical Society (EPS) 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).

Outstanding Referee of the APS.

Fellow of the APS (Quantum Information Division).

Invited talks in conferences and seminars in research centers

I gave around hundred invited talks in conferences and workshops as: twice at the ICPS conference (Austin 2014; Montpellier 2018), the largest Conference devoted to Semiconductor Physics, and at the ICSNN conference (Hong Kong, 2016), other key conference in the field on semiconductor nanostructures and nanodevices, or to the Fall meeting of the Brasilian Physical Society (2018). I am also invited to the EDINSON conference in August 2023, to the DPG spring meeting, March 2023. (full list below).
I have given plenary talks at the XXIII and the XXIV Conferences of Statistical Mechanics (Sitges, 2012, 2014).
I have also given invited outreach lectures, as the one at the Open Doors of the University of Ottawa: "Frontiers in Research Lectures: Nano- from small beginnings to a great future ", (2003) or the one at the emblematic "Residencia de Estudiantes" of Madrid (CSIC) in the cycle: "Ágora para la Ciencia": "Artificial Atoms and Molecules for Quantum Information", (2013), etc...
I was invited to give more than 60 seminars in national and international research centers and to participate in different activities in national and international forums related with gender issues. I am member of a panel to elaborate the "Gender Equality Plan" for the Spanish Physical Society.

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

Participation in the program, steering and/or organizing committee of more than 30 international conferences and workshops.

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-chair with Prof. Loss of the international conference: SPIN V, Pontresina, September 2022.

Publications (10 recent representative publications)

1-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).

2- Floquet-Bloch theory and topology in periodically driven lattices, A. Gómez-León and G. Platero, Phys. Rev. Lett., 110, 200403 (2013).

3- "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).

4-Topological instabilities in ac-driven bosonic systems, G. Engelhardt, M. Benito, G. Platero, T. Brandes, Phys. Rev. Lett., 117, 045302 (2016).

5-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).

6-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).

7- "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).

8- Topology and Interactions in the Photonic Creutz-Hubbard Ladders, J Zurita, CE Creffield, G Platero, Adv. Quantum Tech. 3 (2), 1900105(2020)

9- Tunable zero modes and quantum interferences in flat-band topological insulators, J. Zurita, C.E. Creffield and G. Platero, Quantum, 5, 591, (2021).

10- Proposal for Detection of the Phases in Quantum Dot Josephson Junctions, M Lee, R López, HQ Xu, G Platero, Phys. Rev. Lett. 129 (20), 207701 (2022).

Teaching activities, mentoring

I was Honorary Professor at the UAM (1990-1997).
I was Professor at the excellence doctorate program on engineering and mathematics at the Carlos III University (1994-98).
I am Associate Member of the Theoretical Physics Master (Quantum Information) at the UCM from 2013. I also participate in the Master program on Condensed Matter Physics and Biological Systems (UAM) advising Master students.
I participate in the PhD Physics program at the UCM and at the UAM.
I participate in the Master on Quantum Nanotechnologies (UIMP-CSIC).
I have advised more than 20 degree and master works.
I have advised ten postdoctoral researchers.
I have been mentor of High School Students from the Community of Madrid.
I participate in the RISE program (DAAD, Germany) to mentor under-graduated German students (4 students) and in the JAE intro (CSIC) program for graduate students for introducing

them in research (7 students). I have advised several students from the UAM on "Research Training", to introduce them in research at the CSIC (11 students), and to other undergraduate students through a national program for young students (PEJ).

I have supervised 14 PhD students, all have received "Cum Laude", two of them awarded by the UAM and the GEFES (Spanish Condensed Matter Division) respectively. From them, ten work in Academia, seven of them with permanent positions at different universities in Spain (UC3M, UIB, UAM), at CSIC or in Germany (Augsburg U.). One of them, Mónica Benito (Professor W2 in Ausgburg), was recently awarded with the Emmy Noether prize in Germany. Three of them are postdoctoral researchers (MPI Garching, Braunschweig U., and Regensburg U.). The supervision of another three PhD students is in progress (one is defending the PhD work the 17th of March this year).

Panel member in Expert Committees abroad:

Member of the Review Panel of the National Centre of Excellence NCCR SPIN (Basel University) (Swiss National Science Foundation (SNSF), 2021,2022,2023

Member of the evaluation panel for a position as Principal Research Scientist at Tyndall National Institute - Quantum Information, 2023.

Referee of the NWO Talent Programme (Dutch Research Council) 2022.

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.

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 (USA), National Science Foundation (USA), CNRS (France), DFG (Germany), NSERC (Canada), FONDECYT (Chile), CONICET (Argentina), NCN (Poland), PRACE (EU center of Super-computation).

Committees in Spain:

Member of the PEJ ("Plan de Empleo Juvenil") "Youngs Employment Plan", CAM, 2022.

Regular Collaborator of the AEI (State Research Agency, Spain)

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 at CSIC, 2008-2011.

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.

Participation in several evaluation panels along the years for National Projects in Physics and in Material Science, for JdlC and RyC contracts (Spanish Ministry) and for the CAM (Community of Madrid).

Other Referee duties

Member of committees for several PhD defenses in different Universities in Spain, Germany (Hamburg U., Technical U. Berlin), Denmark (Technical U. of Denmark), Ensenada (UNAM Mexico), Grenoble (U. Grenoble Alpes), Sweden (Uppsala U.), NL (Utrecht U.), Strasbourg (France), Norway, etc…
Member of several committees for full Professor and permanent positions in Spain, Finland, Germany and Switzerland.

Referee of more than 20 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, Europhysics Letters, J. of

Phys. C, The European Phys. J. B, Physical Rev. B, Phys. Letters A, International Journal of Solids and Structures, Chem. Physics, Materials, Chemistry and Physics, Symmetry, Nanoscale Research Lett., Physical Review Applied, Annalen der Physik, ...

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 spatio-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** ICMM 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** ICMM-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 PI: M. Rubí, **PI** ICMM-CSIC team**: G. Platero**.

2015/2017, MAT2014-58241-P, “Transport of Quantum Information and Energy in Nanostructures”, **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, PI: J.M. Rubi, **PI** ICMM-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- 31/12/2022, Proyecto Nacional: Proyectos Intramurales PTI, QTP2021-03-002, “Qubits híbridos y semiconductores”, **co-PI G. Platero**.

1/10/2021-31/12/2023, 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.

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 Heraus 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 Italy, 2002.

28. 283 International WE Heraus 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. EU 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 Mesoscopics Thermodynamics: "Spin transport in double quantum dots: role of Hyperfine interaction", Prague, Czech Republique, 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, Sicily, 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, Plenary 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 Republique, 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 Nanmagnetism & 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 Nanomagnetism & 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 Nanomagnetism & 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 Nanomagnetism & 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, Leganés, Spain 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, Bilbao, November 2021

84. Institute Nicolás Cabrera: XXIV Young Researchers Meeting, Miraflores, December 2021.

85. Workshop: Topological Quantum Matter, Buenos Aires, April 2022.

86. International workshop on “Semiconductors, nanostructures, 2D systems and Dirac matter”, HFML Grenoble, June 2022.

87. Invitation to participate in the round table on semiconductors in the international conference “Quantum 2022”, Barcelona. June, 2022.

88. ICSNN, Vietnam, July 2022 (cancelled due to the Pandemia).

89. "Quantum Designer Physics", International Conference, San Sebastián, July 2022.

90. “International Conference on Strongly Correlated Electron Systems (SCES 2022), Amsterdam, Holland, July, 2022.

91. International Conference: Spin Qubit 5, Pontresina, Switzerland, September 2022.

92. DPG Condensed Matter Spring Meeting, Dresden, March 2023.

93 EDINSON 2023, Münster, Germany, August 2023.

Other invited talks:

94. Complutense University of Madrid: “Manipulation of artificial atoms and molecules”, dissemination talk, March 2018.

95. “Non-linear Physics at the Nanoscale”, lectures on Industrial Problems, Master in Industrial Mathematics, Santiago de Compostela, Vigo, La Coruña and Carlos III Madrid Universities, 14th October 2021.

96. “Woman and Science”, Institute of Technological Research, Comillas University, 25th February, 2021.

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

98. Dissemination talk: “Quantum Dots: Platforms for Quantum Computation and Simulation”, UIB (Palma de Mallorca) on-line, May, 2022.

99. “Floquet Engineering in Nanostructures”, Santiago de Compostela University, June 2023.

List of Publications

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 Green 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 Science and Technology, **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, Europhys. Lett., **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, Europhys. Lett., 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, Europhys. Lett., **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). (Procc. Conference)

40. "ac Kondo effect in Quantum Dots", R. Aguado, R. López, G. Platero and C. Tejedor, Physica B, **256-258**, 165-168 (1998). (Procc. Conference)

41. "Magnetic Field induced charge instabilities in weakly coupled superlattices", R. Aguado and G. Platero, Physica B, **256-258**, 233-238 (1998). (Procc. Conference)

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). (Procc. Conference)

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). (Procc. Conference)

47. "Microscopic Derivation of transport coefficients and boundary conditions 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. "Temperature-induced breakdown of stationary electric field domains in superlattices", D. Sánchez, L. L. Bonilla and G. Platero, Physica E, Low-dimensional Systems and Nanostructures, **13**,798-801 (2002). (Procc. Conference)

54. "Photo-assisted dynamical transport in multiple quantum wells", Rosa López, David Sánchez and Gloria Platero, Physica E, Low-dimensional Systems and Nanostructures, **12**, 319-322, (2002). (Procc. Conference)

55. "Canted phase in Artificial molecules", David Sánchez, Luis Brey and Gloria Platero, Physica E, Low-dimensional Systems and Nanostructures**,12**, 904-907 (2002). (Procc. Conference)

56. "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-dimensional Systems and Nanostructures**, 12**, 810 (2002). (Procc. Conference)

57. "Non-linear spin transport in magnetic semiconductor multiple quantum wells", D. Sánchez, A. H. MacDonald and G. Platero, Physica E, Low-dimensional Systems and Nanostructures, **13**,525-528 (2002). (Procc. Conference)

58. "Nonequilibrium Transport through Double Quantum Dots: Kondo Effect versus Antiferromagnetic Coupling", R. López, R. Aguado. and G. Platero, Phys. Rev. Lett., **89**, 136802 (2002).

59. "AC driven localization 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 polarized current oscillations in diluted magnetic semiconductor multiple quantum wells", 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). (Procc. Conference)

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). (Procc. Conference)

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). (Procc. Conference)

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. "Spin Filter effect in an AC driven double quantum dot", R. Sánchez, E. Cota, R. Aguado and G. Platero, Physica E, Low-dimensional Systems and Nanostructures **34**, 405 (2006). (Procc. Conference)

76. "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). (Procc. Conference)

77. "Spin blockade removal in a double quantum dot via Hyperfine interaction", J. Iñarrea, G. Platero and A. MacDonald, Physica E, Low-dimensional Systems and Nanostructures, **34**, 429-432 (2006). (Procc. Conference)

78. "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). (Procc. Conference)

79. "Temperature and magnetic field dependence of radiation-induced magneto-resistance oscillations in a 2D electron gas", Jesús Iñarrea and Gloria Platero, Phys. Stat. Solidi (a), 203, 6, 1188-1193, (2006). (Procc. Conference)

80. " From zero resistance states to absolute negative conductivity in microwave irradiated two-dimensional electron systems", J. Iñarrea and G. Platero, Applied Physics Letters, **89**, 052109, (2006).

81. "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).

82. "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). (Procc. Conference)

83. "Spin-dependent transport through magnetic nanojunctions", K. Walczak and G. Platero, Central European Journal of Physics, **4**, 30-41 (2006). (Procc. Conference)

84. "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). (Procc. Conference)

85. "Magnetoresistivity Modulated Response in Bichromatic Microwave Irradiated 2D Electron Systems", J. Iñarrea and G. Platero, Applied Phys. Lett., **89**, 172114 (2006).

86. " 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). (Procc. Conference)

87. "Resonance Fluorescence in Transport through Quantum Dots: Noise Properties", R. Sánchez, G. Platero, and T. Brandes, Phys. Rev. Lett. **98**, 146805 (2007).

88. "Multi-quantum Well Oscillator", L.L. Bonilla, R. Escobedo, M. Carretero and G. Platero, Appl. Phys. Lett., **91**, 092102 (2007).

89. "Polarization Inmunity of Magneto-resistivity response under microwave excitation", J. Iñarrea y G. Platero, Phys. Rev. B, **76**, 073311 (2007).

90. "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).

91. "Hysteretic behavior in weakly coupled double-dot transport in the spin blockade regime", J. Iñarrea, C. López-Monís, A.H. MacDonald and G. Platero, Applied Physics Letters, **91**, 252112 (2007).

92. "New emerging effect in Microwave-induced resistivity oscillations in 2D electron systems: Bichromatic radiation, Anharmonicity and Polarization immunity", Jesus Iñarrea and Gloria Platero, Physica E, Low-dimensional Systems and Nanostructures **40**, 1902-1905 (2008). (Procc. Conference)

93. "Electron Spin Resonance in Double Quantum Dots", R. Sánchez, C. F. López-Monís, J. Iñarrea and G. Platero, Physica E, Low-dimensional Systems and Nanostructures **40**, 1457 (2008). (Procc. Conference)

94. "Multi-quantum well spin polarized current oscillator", M. Carretero, R. Escobedo, L. L. Bonilla and G. Platero, Physica E, Low-dimensional Systems and Nanostructures, **40**,1099-1101 (2008). (Procc. Conference)

95. "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-dimensional Systems and Nanostructures, **40**, 1189 (2008). (Procc. Conference)

96. "Transport in an ac-driven triple dot quantum shuttle", I. Maldonado, J. Villavicencio, E. Cota and G. Platero, Physica E, Low-dimensional Systems and Nanostructures, **40**, 1105 (2008). (Procc. Conference)

97. "Shot Noise in Spin Pumps", R. Sánchez, F.J. Kaiser, S. Kohler, P. Hanggi and G. Platero, Physica E, Low-dimensional Systems and Nanostructures, **40**, 1276 (2008). (Procc. Conference)

98. "Phonon Emission in Two Levels Quantum Dots", R. Sánchez, G. Platero and T. Brandes, Physica E, Low-dimensional Systems and Nanostructures, **40**,1157 (2008). (Procc. Conference)

99. "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). (Procc. Conference)

100. "Electron bunching in stacks of coupled quantum dots", R. Sánchez, S. Kohler, P. Hanggi and G. Platero, Phys. Rev. B, **77**, 035409 (2008).

101. "Double-dot transport in the spin blockade regime", Gloria Platero and Jesús Iñarrea, HAIT Journal of Science and Engineering **5**, 243 (2008). (Procc. Conference)

102. "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). (Procc. Conference)

103. "Coherent spin rotations in open driven double quantum dots", R. Sánchez, C. López-Monís and G. Platero, Phys. Rev. B, **77**, 165312 (2008)

104. "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).

105. "Spin correlations in spin blockade", Rafael Sánchez, Sigmund Kohler and Gloria Platero, New Journal of Physics **10**, 115013 (2008).

106. "Weiss oscillations modulated by Microwave Radiation", Jesús Iñarrea and Gloria Platero, IEEE transactions on magnetics, vol. **44**, 11, (2008). (Procc. Conference)

107. "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).

108. "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).

109. "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). (Procc. Conference)

110. "Driving Weiss oscillations to zero resistance states by microwave Radiation", J. Iñarrea and G. Platero, Applied Phys. Letters, **93**, 062104 (2008).

111. "Resonance Fluorescence in driven quantum dots: Electron and photon correlations", R. Sánchez, G. Platero, and T. Brandes, Phys. Rev. B, **78**, 125308 (2008).

112. "Selfsustained spin-polarized current oscillations in multi-quantum well structures", R. Escobedo, M. Carretero, L. L. Bonilla and G. Platero, New Journal of Physics,**11**, 013033 (2009).

113. "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).

114. "Microwave magneto-absorption in 2D electron systems", J. Iñarrea and G. Platero, Appl. Phys. Lett., **95**,162106 (2009).

115. "Magneto-switching of current oscillations in diluted magnetic semiconductor nano-structures", R. Escobedo, M. Carretero, L.L. Bonilla, G. Platero, Phys. Rev. B, **80**,155202 (2009).

116. "Hyperfine mediated 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).

117. Erratum: Coherent spin rotations in open driven double quantum dots (Phys. Rev. B, 77,165312 (2008)), R. Sánchez, C. López-Monís, G. Platero, Phys. Rev. B, **79**, 119903 (2009).

118. "Electron Spin Resonance in Triple Quantum Dots Interferometers", M. Busl, R. Sánchez and G. Platero, Physica E, Low-dimensional Systems and Nanostructures, **42**, 830 (2010). (Procc. Conference)

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-dimensional Systems and Nanostructures, **42**, 643 (2010). (Procc. Conference)

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). (Procc. Conference)

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). (Procc. Conference)

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. "Electron Spin Resonance in Triple Quantum Dots", Maria Busl, Rafael Sánchez, Gloria Platero, Journal of Phys. Conference Series, **245**, 012016 (2010). (Procc. Conference)

125. "Microwave-induced resistance oscillations versus magneto-absorption in two-dimensional electron systems: role of temperature ", J. Iñarrea and G. Platero, Nanotechnology, **21**, 315401 (2010).

126."Electron bunching in triple quantum dot interferometers", F. Domínguez, G. Platero and S. Kohler, Chemical Physics, **375,** 234 (2010)

127."Coherent control of interacting particles using dynamical and Aharonov-Bohm phases", C. E. Creffield and G. Platero, Phys. Rev. Lett., **105**, 086804 (2010).

128."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)

129. "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).

130. "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).

131. "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).

132."Phonon-mediated decoherence in triple quantum dot interferometers", F. Domínguez, S. Kohler and G. Platero, Phys. Rev. B, **83**, 235319 (2011).

133. "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).

134."Triple Quantum Dots as Charge Rectifiers", M. Busl and G. Platero, J. Phys. Condens. Matter, **24**,154001 (2012).

135. "Transport blocking and topological phases using ac-magnetic fields", A. Gómez-León and G. Platero, Phys. Rev. B, **85**, 245319 (2012).

136. "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).

137. "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).

138."Helical edge states coupled to a spin bath: Current-induced magnetization"**,** M. Lunde and G. Platero, Phys. Rev. B, **86,** 035112 (2012) (Editor suggestion)

139. "Topological phases in adiabatic and non-adiabatic driven systems"**,** A. Gómez-León and G. Platero, Phys. Rev. B, **86**, 115318 (2012).

140. "Dynamical detection of Majorana fermions in current-biased nanowires", F. Domínguez, F. Hassler and G. Platero, Phys. Rev. B, **86**, 140503(R) (2012).

141. "Double coupled electron shuttle", M. Prada and G. Platero, Phys. Rev. B **86**, 165424

(2012).

142. “Steady-State Coherent Transfer by Adiabatic Passage”, J. Huneke, G. Platero and S. Kohler, Phys. Rev. Lett., **110**, 036802 (2013).

143. “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 Nanotechnology, **8**, 262 (2013).

144. “Dark Bell states in tunnel-coupled spin qubits”, Rafael Sánchez and Gloria Platero, Physical Rev. B (Rapid Comm.), **87**, 081305(R) (2013)

145. “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).

146. “Floquet-Bloch theory and topology in periodically driven lattices”, A. Gómez-León and G. Platero, Physical Review Letters,**110**, 200403 (2013).

147. “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).

148. “Hyperfine Interactions in two-dimensional HgTe topological Insulators”, A. M. Lunde and G. Platero, Phys. Rev. B, **88**, 115411 (2013)

149. “Realizing Broad Bands of Strong Nonlinear Coupling in Nano-Electromechanical Energy Harvesters”, Chulki Kim, Marta Prada, Gloria Platero and Robert H. Blick, Physical Review Letters (Featured in Physics) ,**111**, 197202 (2013).

150. erratum: “Theoretical approach to microwave induced zero resistance states in 2D electron systems”, J. Iñarrea and G. Platero, Phys. Rev. Letters, **111**, 229903 (2013).

151. “Spin-orbit effects in a triple quantum dot shuttle”, J. Villavicencio, Irene Maldonado, E. Cota and G. Platero Physical Review B, **88**, 245305 (2013).

152 “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).

153. “Uni-directional direct current in coupled nanomechanical resonators by tunable symmetry breaking”, M. Prada, G. Platero and D. Pfannkuche, Phys. Rev. B, **89**, 045426 (2014).

154. “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).

155. “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, Physical Review Letters, **112**, 176803 (2014).

156. “Super-exchange blockade in triple quantum dots”, R. Sánchez, F. Gallego-Marcos and G. Platero, Phys. Rev. B (Rapid Comm.), **89**, 161402, (2014).

157. “Nonequilibrium relaxation transport of ultracold atoms”, F. Gallego-Marcos, G. Platero, C. Nietner, G. Schaller, and T. Brandes, Phys. Rev. A, **90**, 033614 (2014).

158.“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 Physics,**16**, 109502 (2014).

159. “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).

160. “Photon assisted long-range tunneling”, F. Gallego-Marcos, R. Sánchez and G. Platero, Journal of Applied Physics, **117**, 112808 (2015); (Invited, procc. ICPS 2014).

161. “Floquet Majorana Fermions in superconducting quantum dots”, M. Benito and G. Platero, Physica E, **74**, 608 (2015), (invited and devoted to Prof. M. Buttiker).

162. “Radiation-induced resistance oscillations in a 2D hole gas: a demonstration of a universal effect", J. Inarrea, G. Platero, J Phys Condens Matter. **27**, 415801 (2015). (Procc. Conference)

163. **“**Fourier transform analysis of irradiated Weiss oscillations”, J. Iñarrea and G.Platero, Europhys. Lett., **109,** 67001 (2015).

164. “Coupled Landau-Zener-Stückelberg Quantum Dot Interferometers”, F. Gallego-Marcos, R. Sánchez and G. Platero, Phys. Rev. B, **93**, 075424 (2016).

165. “Long-range doublon transfer in a dimer chain induced by topology and ac fields”, M. Bello, C.E. Creffield and G. Platero, Scientific Reports, **6**, 22562 (2016).

166. “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).

167. “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).

168. “Edge state blockade of Transport in Quantum Dot Arrays”, M. Benito, M. Niklas, G. Platero, S. Kohler, Phys. Rev. B, **93**,115432 (2016).

169. “Topological instabilities in ac-driven bosonic systems”, G. Engelhardt, M. Benito, G. Platero, T. Brandes, Phys. Rev. Lett.,**117**, 045302 (2016).

170. “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).

171. “Transport, shot noise, and topology in AC-driven dimer arrays”, M. Niklas, M. Benito, S. Kohler and G. Platero, Nanotechnology, **27** 454002 (2016).

172. “Coherent Long-Range Thermoelectrics in Nonadiabatic Driven Quantum Systems”, F. Gallego-Marcos and G. Platero, Physical Rev. B, **95**, 075301 (2017).

173. “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).

174. “Topologically enforced bifurcations in superconducting circuits”, G. Engelhardt, M. Benito, G. Platero, and T. Brandes, Phys. Rev. Lett.,**118**, 197702 (2017).

175.“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).

176. “Doublon Lifetimes in dissipative enviroments”, M. Bello, G. Platero and S. Kohler, Phys. Rev. B, **96**, 45408 (2017).

177. “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).

178. “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).

179. “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).

180. “Thermoelectric performance of topological boundary modes”; S. Böhling, G. Engelhardt, G. Platero and G. Schaller, Phys. Rev. B, **98**, 035132 (2018).

181. “Fast long-range charge transfer in quantum dot arrays”, Y. Ban, X. Chen and G. Platero, Nanotechnology, **29**, 505201 (2018).

182. “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).

183. “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).

184. “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).

185. “Unconventional quantum optics in topological waveguide QED”, M. Bello, G. Platero, I. Cirac and A. González-Tudela, Science Advances, vol **5**, 7, eaaw0297 (2019).

186. “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).

187. “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).

188. “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, Physics Review Letters, **123**, 120602 (2019).

189. “Spin entangled state transfer in quantum dot arrays: Coherent adiabatic and speed-up protocols”, Y. Ban, X. Chen, S. Kohler and G. Platero, Advanced Quantum Technologies, DOI: 10.1002/qute.201900048 (2019).

190. “Topology and Interactions in the Photonic Creutz and Creutz-Hubbard Ladders”, J. Zurita, C.E. Creffield y G. Platero, Advanced Quantum Technologies, DOI: 10.1002/qute.201900105 (2019).

191. “Designing adiabatic time-evolution from high frequency sources”, A. Gómez León and G. Platero, Phys. Rev. Research, **2**, 033412 (2020).

192. “Rashba coupling and spin switching through surface states of Dirac semimetals”, Y. Baba, F. Domínguez-Adame, G. Platero and R. A. Molina, New Journal of Phys., **23**, 023008 (2021).

193. “Radiation–induced magnetoresistance oscillations with massive Dirac fermions”, J. Iñarrea y G. Platero, New Journal of Phys., **23**, 063004 (2021).

194. “Tunable zero modes and symmetries in flat-band topological insulators”, J. Zurita, C. E. Creffield y G. Platero, Quantum, **5**, 591 (2021).

195. “Dynamical second-order noise sweet-spots in resonantly driven spin qubits”, Jordi Picó-Cortés and Gloria Platero, Quantum, **5**, 607 (2021).

196. “4π-periodic supercurrent tuned by an axial magnetic flux in topological insulator nanowires”, Ralf Fischer, Jordi Picó-Cortés, Wolfgang Himmler, Gloria Platero, Milena Grifoni, Dmitriy A. Kozlov, N. N. Mikhailov, Sergey A. Dvoretsky, Christoph Strunk, Dieter Weiss, Phys. Rev. Research, **4**, 013087, (2022).

197. “Spin many-body phases in standard and topological waveguide QED simulators”, M. Bello, G. Platero, and A. González-Tudela, PRX Quantum, **3**, 010336 (2022).

198. “Photovoltage oscillations in encapsulated graphene”, J. Iñarrea and G. Platero, Scientific Reports, **12**, 5157 (2022).

199. “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. Applied, Editor Suggestion, **18**, 014009 (2022).

200. “Topological detection in cavity QED”, Beatriz Perez-Gonzalez, Alvaro Gomez-Leon, Gloria Platero, Physical Chemistry Chemical Physics, **24**, 15860 (2022), DOI: 10.1039/D2CP01806C

201. “Terahertz-Induced Oscillations in Encapsulated Graphene”, J. Iñarrea, G. Platero, Phys. Stat. Solidi B, DOI: 101002/pssb.202200266 (2022). (Procc. Conference ICPS)

202. “Proposal for Detection of the 0′ and π′ Phases in Quantum-Dot Josepshon Junctions”, M. Lee, R. Lopez, H. Q. Xu, and G. Platero, Physical Review Letters, **129**, 207701 (2022). Editor Suggestion.

203. “Quantum control of two-qubit hole spin gates”, D. Fernández-Fernández, Y. Ban, and G. Platero, Phys. Rev. Appl., **8**, 054090, (2022).

204. “Fast quantum transfer mediated by topological domain walls”, J. Zurita, C.E., Creffield, G. Platero, submitted. arXiv:2208.00797

205. “Topological synchronization of quantum van der Pol oscillators”, Christopher W. Wächtler, Gloria Platero, submitted. arXiv:2208.01061

206. “Light-matter correlations in Quantum Floquet engineering”, B. Pérez-González, G. Platero, A. Gómez-León, submitted. arXiv:2302.12290

207. “Photo-assisted spin transport in double quantum dots with spin-orbit interaction”, D. Fernández-Fernández, J. Picó-Cortés, S. Vela-Liñan and G. Platero, submitted, arXiv: 2302.12272