

JOAQUIN FERNANDEZ-ROSSIER



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Professional Appointments

October 2016-present

Head of the Department of Quantum Materials, Science and Technology at INL

August 2011-present

Research Staff (Group Leader), International Iberian Nanotechnology Laboratory (INL), Braga, Portugal (On leave from University of Alicante). From October 2016, Head of Department.

November 2009 –present

Associate Professor (*Profesor Titular*), Department of Applied Physics (DAP), University of Alicante (UA), (Spain)

April 2008 –November 2009

Associate Professor (*Profesor Contratado Doctor*), Dept. of Appl. Phys., UA (Spain)

March 2003 –March 2008

Assistant Professor (*Investigador Ramón y Cajal*), Department of Applied Physics, University of Alicante (Spain)

Sept. 2001 – March 2003

Postdoctoral Fellow in the Physics Department of the University of Texas at Austin.

Sept. 1999 – August 2001

Postdoctoral Fellow in the Physics Department of the University of California San Diego

Feb. 1998 - Sept. 1999

Teaching Assistant in the Science Faculty, Universidad Autónoma de Madrid (UAM)

Jan. 1995 -Feb. 1998

Graduate student at the Dep. of Condensed Matter Theory

Education

Ph. D., Physics (January 1999)

Department of Physics, **Universidad Autónoma de Madrid**, Spain.

Dissertation: *Collective properties of interacting excitons in semiconductor Quantum Wells.*

Thesis advisor: Professor Carlos Tejedor

B. Sc., Physics, September 1994

1st, 4th and 5th year in **Universidad Autónoma de Madrid**, Spain

Second and third year in **Université Libre de Bruxelles**, Belgium

Current Research Interests

- Quantum technologies
- Magnetism and spintronics at the atomic scale, single dopant devices, electronic properties of single point defects
- Electronic properties of graphene and other two dimensional crystals

Research Highlights

- Over 100 indexed publications, including Nature (1), Nature Materials (2), Nature Nanotechnology (2), Physical Review Letters (17), Nano Letters (2), Phys. Rev. X (1), Applied Physics Letters (3) and Physical Review B(44)
- Cover of Nature Materials August 2014 and Nature Nanotechnology November 2016
- Over 3000 citations (ISI Web of Science), $h=30$
- 4 single author publications (Nature Materials, Phys. Rev. Lett., Phys. Rev. B(2)).
- Over 80 invited talks and seminars
- Organizer of the Lorentz Center Workshop “Single Dopant Control” (2010)
- Main organizer of the SPINOGRAPH 1st School, INL, Braga, Portugal, March 2014
- Main Organizer of SPICE Johannes-Guttenberg University Workshop “Magnetic adatoms as building blocks for quantum magnetism” August 2015
- Main Organizer of the SPINOGRAPH workshop “New Trends in 2D Materials”, IMDEA-Nanoscience, Madrid, February 2016
- Principal investigator of Marie Curie Training Network on Spintronics in Graphene, 3.9M€

Teaching Experience

- 8 academic years at University of Alicante (2003-2011), both undergrad and master
- 2 academic years as teaching assistant at Universidad Autónoma de Madrid (1998-99)
- Graduated 4 PhD Students, supervised 6 postdoctoral researchers.
- I currently supervise 2 PhD students and 1 master student

Honors, Awards and recognitions

- Member of the editorial board of the 2DMaterials journal (IOP)
- Elected Member of the Board of Directors of the Spanish Royal Society of Physics (2013-)
- Member of the Board of Directors of the Solid State Physics Division within the Spanish Royal Society of Physics (2012-). Vice-president since January 2016.
- RTRA Junior prestigious visitor professor to CNRS/CEA Grenoble (2008-10)
- I3 Award (120k€) for outstanding researchers, granted by the Spanish Ministry (2007)
- Awarded with 5 year research assistantship by Spanish Government (*Ramón y Cajal Program*, 2003-2008)
- Post-doctoral Fellowship from the Spanish Ministry of Education (1999, 2 years)

Outreach and Blogging

- Since January 2013, Outreach blog with 88 entries and 52000+ visits:
<http://delaiade.blogspot.com/>
- Since March 2012, Blog on academic topics (62 entries, 2500 visits):
<http://4cositas.blogspot.com/>

CURRICULUM VITAE ADDENDUM

Research Funding (as PI)

Funding summary: total cumulative external funding as PI 1.4M€

1. Funding Agency: FP7 Marie Curie ITN program
Period: September 2013-August 2017. Amount: 3.8M€ (0.8M€ for INL)
Research Project: "Spintronics in Graphene"
Number of partners: 9
2. Funding Agency: Ministerio de Ciencia y Tecnología (Spain)
Period: 2011-2013 Amount: 186k€
Research Project: "New Generation Nanoelectronics"
Number of participants: 9. Reference: **FIS2010-21883-C02-01**
3. Funding Agency: Ministerio de Ciencia y Tecnología (Spain)
Period: 2009-2010. Amount: 120k€
Research Project: "*One dimensional nanostructures*"
Number of participants: 8. Reference: MAT07-67845
4. Funding Agency: Ministerio de Ciencia y Tecnología (Spain)
Period: 2008-2011 Amount: 120k€
Research Project: I3 Award
Number of participants: 1
5. Funding Agency: Ministerio de Educación y Ciencia
Period: 2007-2008. Amount: 9900€
Research Project: "Control óptico de un único átomo magnético"
Number of participants: 3. Reference: HF20060004
6. Funding Agency: Ministerio de Ciencia y Tecnología (Spain)
Period: 2003-2008. Amount: 161k€
Research Project: "*Current driven nanomagnets*"
Number of participants: 1. Reference: 3282/02
7. Funding Agency: Generalitat Valenciana (Spain)
Period: 2005-2006. Amount: 20k€
Research Project: "*Nanocrystals*"
Number of participants: 3. Reference:GV05-152

Committees and other professional activities

- Organizer of the Workshop on Quantum Materials and Quantum Technologies, held at INL, Braga. 70 participants, September 13-14 2016.
- Main organizer of the SPINOGRAPH workshop “New Trends in 2D Materials”, held in IMDEA-Nanoscience, Madrid. 70 participants. February 22-26 2016
- Member of the scientific committee of NanoPortugal 2016, INL, Braga, Portugal. February 16-19 2016
- Elected vice president of the board of directors of GEFES (Solid State Physics group of the Spanish Royal Society of Physics)
- Serving in the recruitment committee for a permanent position in CSIC (Spanish Research Council). October 2015
- Main organizer of the SPICE workshop “Magnetic adatoms as building blocks for quantum magnetism”, in the Johannes Guttenberg University, Mainz, Germany. 50 participants. August 17-20, 2015
- Main organizer of 1st SPINOGRAPH School, at INL, Braga, Portugal (Mar 25-28 2014, Braga), 22 students, 12 professors
- Member of the Editorial Board of 2D Materials (Feb 2014- Dec. 2016)
- Member of the Scientific Committee of the “VIII Meeting of the Solid State Group of the Spanish Royal Society”, Ciudad Real, January 22-24 (2014)
- Main organizer of the Symposium of the Solid State Physics Division of the Spanish Royal Society biannual meeting on “*Two dimensional crystals*”, in Valencia, on July 17-18, 2013. Number of participants: 50
- Elected Member of the INL Staff Association Council of INL (January 2013-March 2014)
- Founder of the Staff Association of the INL (January 2013)
- Co-organizer of the “*Workshop on properties and fabrication of Nanostructures*”, in Alicante, November 8-9, 2012. Number of participants: 30
- Organizer of the “*Summer Tutorials at INL*”, 9 talks, above 40 participants each, 2012
- Main organizer of the second *Nanomediterranean Workshop*, in Alicante, June 17 and 18, 2011. Number of participants: 40
- Organizer of the Lorentz Center Workshop “Single Dopant Control”. March 29 April 1st 2010, Leiden, Netherlands. Number of participants 62.
- Member of the organizing committee in the 2nd European School of Molecular Electronics, October 25 to 29, 2009, in Benidorm, Spain. Number of participants: >60
- Member of the Scientific Committee of the First Nanomediterranean Workshop, in Castellón, Spain, June 19 2009. Number of participants: 30
- Member of the organizing committee of the “*II Jornadas de Nanociencia de la Universidad de Alicante*”, May 15 2008. Number of participants: 30
- Organizer of the “*Primer Encuentro de investigadores del grafeno y nanotubos*”, Alicante, June 16 2007. Number of participants: 40
- Member of the local committee in the “IV reunion nacional del Física del Estado Sólido (GEFES)”, Alicante, February 1-3, 2006. Number of participants: above 150.
- Referee of Nature Materials, Nature Physics, Physical Review Letters, Physical Review B, EPL, Journal of Chemical Physics, New Journal of Physics, Solid State Communications, Physics Letters A, Nanoscale Research Letters, Applied Physics Letters, Journal of Applied Physics
- Proposal reviewer of ANEP and FOM
- Undergraduate Curriculum Committee (2010-11)

- Nanoscience Master Academic Committee (2008-2011)

Publications

Summary: 105 indexed publications, 90 regular articles. Nature (1), Nature Materials (2), Nature Nanotechnology (2), Physical Review Letters (17), Physical Review X (1), Nano Letters (2), 2D Materials (2), Physical Review B (46), Applied Physics Letters (3). Above 3000 citations, h=30, as of January 2017 (WOS).

Regular articles

2017

1. *Gating classical information flow via equilibrium quantum phase transitions*
Leonardo Bianchi, **J. Rossier-Fernandez**, Cyrus F. Hirjibehedin, and S. Bose
Accepted for publication in Physical Review Letters
2. *RKKY oscillations in the spin relaxation rates of atomic scale*
F. Delgado and **J. Fernández-Rossier**.
Phys. Rev. B **95**, 075413 (2017)
3. *Electronic Transport in Gadolinium Atomic-Size Contacts*
B. Olivera, C. Salgado, J. L. Lado, A. Karimi, V. Henkel, E. Scheer, **J. Fernández-Rossier**, J. J. Palacios, C. Untiedt. Rev. B **95**, 075409 (2017)
4. *Spin decoherence of adatoms on surfaces*
F. Delgado, **J. Fernández-Rossier**
Progress in Surface Science 92, 40-82 (2017)

2016

5. *Engineering spin exchange in nonbipartite graphene zigzag edges*
R. Ortiz, J. L. Lado, M. Melle-Franco, **J. Fernández-Rossier**
Phys. Rev. B **94** 094414 (2016)
6. *Landau levels in 2D materials using Wannier Hamiltonians obtained by first principles*
J. L. Lado, **J. Fernández-Rossier**
2D Materials **3** 035023 (2016)
7. *Competition between quantum spin tunneling and Kondo effect*
D. Jacob and **J. Fernández-Rossier**
Eur. Phys. J. B (2016) **89**: 210 (2016)
DOI: 10.1140/epjb/e2016-70402-2EPJB
8. *A kilobyte rewritable atomic memory*
F. E. Kalff, M. P. Rebergen, E. Fahrenfort, J. Girovsky, R. Toskovic, J. L. Lado, **J. Fernández-Rossier**, A. F. Otte
Nature Nanotechnology **11**, 926 (2016) (Cover of the November issue)
9. *Centimeter-scale synthesis of ultrathin layered MoO₃ by van der Waals epitaxy*
A. J. Molina-Mendoza, J. L. Lado, J. Island, M. A. Niño, L. Aballe, M. I. Foerster, F. Y. Bruno, H. S. J. van der Zant, G. Rubio-Bollinger, N. Agraït, E. Pérez, **J. Fernandez-Rossier**, A. Castellanos-Gomez
Chemistry of Materials **28** (11), 4042 (2016)
10. *Topological spin waves in the atomic-scale magnetic skyrmion crystal*
A. Roldán-Molina, A. S. Núñez, **J. Fernandez-Rossier**,
New Journal of Physics **18**, 045015 (2016)

11. *Unconventional Yu-Shiba-Rusinov states in hydrogenated graphene*
J. L. Lado , **J. Fernández-Rossier**
2DMaterials **3**, 025001 (2016)

2015

12. *Quantum fluctuations stabilize skyrmion textures*
A. Roldán-Molina, M. J. Santander, A. S. Núñez, **J. Fernández-Rossier**
Phys. Rev. B **92**, 245436 (2015)
13. *Majorana zero modes in graphene*
P. San José, J. L. Lado, R. Aguado, F. Guinea, **J. Fernández-Rossier**
Phys. Rev. X **5**, 041042 (2015)
14. *Electronic properties of transition metals atoms on Cu₂N/Cu(100)*
A. Ferrón, J. L. Lado, **J. Fernández-Rossier**
Phys. Rev. B **92** 174407 (2015)
15. *Controlled complete suppression of Single-Atom Inelastic Spin and Orbital Cotunneling*
B. Bryant, R. Toskovic, A. Ferrón, J. L. Lado, A. Spinelli. **J. Fernández-Rossier**, A. F. Otte
Nano Letters **15**, 6542 (2015)
16. *Quantum Anomalous Hall effect in graphene coupled to skyrmions*
J. L. Lado , **J. Fernández-Rossier**
Physical Review B **92**, 115433 (2015)
17. *Edge states in graphene-like systems*
J. L. Lado, N. A. García, **J. Fernández-Rossier**
Synthetic Metals **210**, 56–67 (2015)
18. *Orbital magnetization in Quantum Spin Hall nanoparticles*
P. Potasz, **J. Fernández-Rossier**
Nano Letters **15**, 5799 (2015)
19. *Quantum Spin Hall phase in multilayer graphene*
N. A. García, J. L. Lado , **J. Fernández-Rossier**
Physical Review B **91**, 235451 (2015)
20. *Derivation of spin Hamiltonians for Fe in MgO*
A. Ferrón, F. Delgado, **J. Fernández-Rossier**
New Journal of Physics **17**, 033020 (2015)
21. *The emergence of classical behavior in magnetic adatoms*
F. Delgado, S. Loth, M. Zielinski, **J. Fernández-Rossier**
Europhysics Letters **109**, 57001 (2015)

2014

22. *Noncollinear magnetic phases and edge states in graphene quantum Hall bars*
J. L. Lado, **J. Fernández-Rossier**
Phys. Rev. B **90**, 165429 (2014)
23. *Consequences of Kondo exchange on quantum spins*
F. Delgado, C. Hirjibehedin, **J. Fernández-Rossier**
Surface Science **630**, 337 (2014)
24. *Magnetic edge anisotropy in graphene-like honeycomb crystals*
J. L. Lado, **J. Fernández-Rossier**,
Physical Review Letters **113**, 027203 (2014)

25. *Imaging of spin waves in atomically designed nanomagnets*
A. Spinelli, B. Bryant, F. Delgado, **J. Fernández-Rossier**, A. F. Otte,
Nature Materials **13**, 782 (2014)
26. *Quantum theory of spin waves in finite chiral spin chains*
A. Roldán, M. J. Santander, A. S. Núñez, **J. Fernández-Rossier**
Phys. Rev. **B89**, 054403 (2014)
27. *Control of single spin magnetic anisotropy by exchange interaction*
J. Oberg, R. Calvo, F. Delgado, D. Jacob, M. Moro, D. Serrate, **J. Fernández-Rossier**, C.
Hirjibehedin
Nature Nanotechnology **9**, 64 (2014)

2013

28. *Large spin splitting in the conduction band of transition metal dichalcogenide monolayers*
K. Kosmider, J. W. González, **J. Fernández-Rossier**
Physical Review **B88**, 245436 (2013)
29. *Local probe of fractional edge states of $S=1$ Heisenberg spin chains*
F. Deldado, C. D. Batista, **J. Fernández-Rossier**
Phys. Rev. Lett. **111**, 167201 (2013)
30. *Anisotropic intrinsic spin relaxation in graphene*
S. Fratini, D. Gosálbez, P. Merodio-Camara, **J. Fernández-Rossier**
Phys. Rev. **B88**, 115426 (2013)
31. *Quantum Hall effect in gapped graphene heterojunctions*
J. L. Lado, J. W. González, **J. Fernández-Rossier**,
Phys. Rev. **B88**, 035448 (2013)
32. *Single atom devices: Quantum Engineering*
J. Fernández-Rossier,
Nature Materials **12**, 480 (2013)
33. *Topologically Protected Quantum Transport in Locally Exfoliated Bismuth at Room Temperature*
C. Sabater, D. Gosálbez, **J. Fernández-Rossier**, J. G. Rodrigo, C. Untiedt and J. J. Palacios
Phys. Rev. Lett. **110**, 176802 (2013)
34. *Electronic properties of the MoS₂-WS₂ heterojunction*
K. Kosmider, **J. Fernández-Rossier**
Phys. Rev. B **87**, 075451 (2013)
35. *Graphene Single electron Transistor as a spin sensor for magnetic adsorbates*
J. W. González, F. Delgado, **J. Fernández-Rossier**
Phys. Rev. **B87**, 085433 (2013)
36. *Intrinsic spin noise in MgO magnetic tunnel junctions*
F. Delgado, K. López, R. Ferreira, **J. Fernández-Rossier**
Applied Physics Letters **102**, 063102 (2013)

2012

37. *Optical control of the spin state of two Mn atoms in a quantum dot*
L. Besombes, C. Cao, S. Jamet, H. Boukari, **J. Fernández-Rossier**
Physical Review **B86**, 165306 (2012)

38. *Impurity states in the quantum spin Hall phase in graphene*
J. W. González, **J. Fernández-Rossier**
Physical Review B **86**, 115327 (2012)
39. *Probing a single nuclear spin in a Silicon Single Electron Transistor*
F. Delgado, R. Aguado, **J. Fernández-Rossier**
Applied Physics. Lett. **104**, 072407 (2012)
40. *Spin filtered edge states in graphene*
D. Gosálbez, D. Soriano, J. J. Palacios, **J. Fernández-Rossier**
Solid State Communications **152**, 1469 (2012)
41. *Interplay between sublattice and spin symmetry breaking in graphene*
D. Soriano, **J. Fernández-Rossier**
Phys. Rev. B **85**, 195433 (2012)
42. *Storage of classical bits in quantum spins*
F. Delgado, **J. Fernández-Rossier**
Phys. Rev. Lett. **108**, 196602 (2012)
43. *Colossal Magnetic Anisotropy in Diluted Magnetic Topological Insulators*
A. S. Núñez, **J. Fernández-Rossier**
Solid State Communications **152**, 403 (2012)

2011

44. *Spin-phonon coupling in single Mn doped CdTe quantum dots*
C. Cao, L. Besombes, **J. Fernández-Rossier**
Physical Review B **84**, 205305 (2011)
45. *Inelastic Electron tunneling spectroscopy of a single nuclear spin*
F. Delgado, **J. Fernández-Rossier**
Phys. Rev. Lett. **107**, 076804 (2011)
46. *Cotunneling theory of inelastic electron single spin spectroscopy*
F. Delgado, **J. Fernández-Rossier**
Phys. Rev. B **84**, 045439 (2011)
47. *Spin orbit effect in curved graphene ribbons*
D. Gosálbez, J. J. Palacios, **J. Fernández-Rossier**
Phys. Rev. B **83**, 115436 (2011)

2010

48. *Spin dynamics of current driven single magnetic adatoms and molecules*
F. Delgado, **J. Fernández-Rossier**
Physical Review B **82**, 134414 (2010)
49. *Spontaneous Persistent Currents in a Quantum Spin Hall Insulator*
D. Soriano, **J. Fernández-Rossier**
Physical Review B **82**, 161302 (2010), Rapid communications
50. *Optical initialization, readout, and dynamics of a Mn spin in a quantum dot*
C. Le Gall, R. S. Kolodka, C. L. Cao, H. Boukari, H. Mariette, **J. Fernández-Rossier**, and L. Besombes
Phys. Rev. B **81**, 245315 (2010)
51. *Hydrogenated graphene nanoribbons for spintronics*
D. Soriano, F. Muñoz-Rojas, **J. Fernández-Rossier**, J. J. Palacios
Phys. Rev. B **81**, 16540 (2010)

52. *Electronic and magnetic structure of graphene nanoribbons*
J. J. Palacios, **J. Fernández-Rossier**, L. Brey and H. Fertig
Semiconductor Science and Technology **25**, 033003 (2010)
53. *Spin Torque on a single magnetic adatom*
F. Delgado, J. J. Palacios, **J. Fernández-Rossier**
Physical Review Letters **104**, 026601 (2010)

2009

54. *Theory of single spin inelastic tunneling spectroscopy*
J. Fernández-Rossier
Physical Review Letters **102**, 256802 (2009)
55. *Giant magneto resistance in ultra-small graphene devices*
F. Muñoz-Rojas, **J. Fernández-Rossier**, J. J. Palacios
Physical Review Letters **102**, 136810 (2009)
56. *Kondo effect in ferromagnetic nanocontacts*
R. Calvo, **J. Fernández-Rossier**, J. J. Palacios, D. Jacob, D. Natelson, C. Untiedt
Nature **458**, 1150 (2009)

2008

57. *Single-exciton spectroscopy of single Mn doped InAs quantum dots*
J. van Brie, P. M. Koenraad, **J. Fernández-Rossier**
Physical Review B **78**, 165414 (2008)
58. *Optical Probing of spin fluctuations of a single paramagnetic Mn atom in a semiconductor quantum dot*
L. Besombes, Y Leger, J. Bernos, H. Boukari, H. Mariette, J. P. Poizat, T. Clement, **J. Fernández-Rossier**, R. Aguado
Physical Review B **78**, 125324 (2008)
59. *Vacancy-Induced magnetism in graphene and graphene ribbons*
J. J. Palacios, **J. Fernández-Rossier**, L. Brey
Physical Review B **77**, 195428 (2008)
60. *Anisotropic magnetoresistance in nanocontacts*
D. Jacob, **J. Fernández-Rossier**, J. J. Palacios
Physical Review B **77**, 165412 (2008)
61. *Prediction of hidden multiferroic order in graphene zigzag ribbons*
J. Fernández-Rossier
Phys. Rev. B **77**, 075430, (2008)
62. *Performance limits of graphene-ribbon field effect transistors*
F. Muñoz-Rojas, **J. Fernández-Rossier**, L. Brey, J. J. Palacios
Phys. Rev. B **77**, 045301 (2008)

2007

63. *VO: A Strongly Correlated Metal Close to a Mott- Hubbard Transition*
F. Rivadulla, **J. Fernández-Rossier**, M. García-Hernández, M. A. López-Quintela, J. Rivas, J. B. Goodenough
Phys. Rev. B **76**, 205110 (2007)

64. *Magnetism in graphene nano-islands*
J. Fernández-Rossier, J. J. Palacios
 Phys. Rev. Lett. **99**, 177204 (2007)
65. *Electronic Structure of gated graphene and graphene ribbons*
J. Fernández-Rossier, J. J. Palacios, L. Brey
 Phys. Rev. B. **75**, 205441 (2007)
66. *Single Electron Transport in electrically tunable nanomagnets*
J. Fernández-Rossier and R. Aguado,
 Phys. Rev. Lett. **98**, 106805 (2007)

2006

67. *Transport in Graphene nanoconstrictions*
 F. Muñoz-Rojas, D. Jacob, **J. Fernández-Rossier**, J. J. Palacios
 Physical Review B **74**, 195417 (2006)
68. *Electrical Control of a Single Mn atom in a Quantum Dot*
 Y. Léger, L. Besombes, **J. Fernández-Rossier**, L. Maingault, H. Mariette
 Phys. Rev. Lett. **97**, 107401 (2006)
69. *Long-range spin-Qubit Interaction mediated by microcavity polaritons*
 G. Quinteiro, **J. Fernández-Rossier**, C. Piermarocchi
 Phys. Rev. Lett. **97**, 097410 (2006)
70. *Emergence of half-metallicity in suspended NiO chains: Ab-initio electronic structure and quantum transport calculations*
 D. Jacob, **J. Fernández-Rossier**, J. J. Palacios
 Phys. Rev. B **74**, 081402 (2006) (Rapid Communication)
71. *Single exciton spectroscopy in semimagnetic quantum dots*
J. Fernández-Rossier,
 Phys. Rev. B **73**, 045301 (2006)

2005-1996

72. *Anisotropic exchange interaction induced by a single photon in a semiconductor microcavity*
 G. Chiappe, **J. Fernández-Rossier**, E. Anda, E. Louis
 Physical Review B **72**, 245311 (2005)
73. *Transport in magnetically ordered Pt nanocontacts*
J. Fernández-Rossier, D. Jacob, C. Untiedt, J. J. Palacios
 Physical Review B **72**, 224418 (2005)
74. *Magnetic and Orbital and blocking in Ni nanocontacts*
 D. Jacob, **J. Fernández-Rossier**, J. J. Palacios
 Phys. Rev. B **71**, 220403 (2005)
75. *Tunnel Magneto-resistance in GaMnAs: going beyond Julliere formula*
 L. Brey, C. Tejedor, **J. Fernández-Rossier**
 Applied Physics Letters **85**, 1996 (2004)
76. *Spin depolarization in the transport of holes across GaMnAs/GaAlAs/p-GaAs*
 L. Brey, **J. Fernández-Rossier**, C. Tejedor
 Phys. Rev. B **70**, 235334 (2004)
77. *Ferromagnetism mediated by few electrons in semimagnetic quantum dots*
J. Fernández-Rossier, L. Brey
 Phys. Rev. Lett. **93**, 1172001 (2004)

78. *Influence of a uniform current on the spin wave spectrum in ferromagnetic metals*
J. Fernández-Rossier, M. Braun, A. S. Núñez, A. H. MacDonald,
Phys. Rev. B. **69**, 174412 (2004)
79. *Coherently Photoinduced Ferromagnetism in Diluted Magnetic Semiconductors*
J. Fernández-Rossier, C. Piermarocchi, P.C. Chen, L. J. Sham, and A. H. MacDonald,
Physical Review Letters **93**, 127201 (2004)
80. *Spin separation in digital ferromagnetic heterostructures*
J. Fernández-Rossier and L. J. Sham
Phys. Rev. B **66**, 073312 (2002)
81. *A theory of ferromagnetism in planar heterostructures of (Mn,III)-V semiconductors*
J. Fernández-Rossier and L. J. Sham,
Phys. Rev. B **64**, 235323 (2001)
82. *Theory of Quantum Mirages in Quantum Corrals*,
D. Porrás, **J. Fernández-Rossier** and C. Tejedor,
Phys. Rev. B. **63**, 155406 (2001)
83. *Fermi-edge singularities in linear and nonlinear ultrafast spectroscopy*,
D. Porrás, **J. Fernández-Rossier** and C. Tejedor,
Phys. Rev. B **63**, 245321 (2001)
84. *Comment on "Quantum Theory of Secondary Emission in Optically Excited Semiconductor...."*
J. Fernández-Rossier, S. Haacke and B. Deveaud,
Phys. Rev. Lett. **84**, 2281 (2000)
85. *Microscopic theory of Coherent Control and Rayleigh Scattering in GaAs Quantum Wells*
J. Fernández-Rossier, C. Tejedor, R. Merlin
Semiconductor Science and Technology, Topical Review, **15** R65 (2000)
86. *Exciton Beats in GaAs Quantum Wells: Bosonic Representation and Collective Effects*
J. Fernández-Rossier, C. Tejedor and R. Merlin,
Solid State Comm. **112**, 597-600 (1999).
87. *Coherent light emission from exciton condensates in semiconductor quantum wells*
J. Fernández-Rossier, C. Tejedor and R. Merlin,
Solid State Communications **108**, 473 (1998)
88. *Spin degree of freedom in two dimensional exciton condensates*
J. Fernández-Rossier and C. Tejedor,
Physical Review Letters **78**, 4908 (1997)
89. *Spin splitting in a polarized quasi-two-dimensional exciton gas*
L. Vina, L. Munoz, E. Perez, **J. Fernández-Rossier**, C. Tejedor, K. Ploog
Physical Review B **54**, R8317 (1996)
90. *Polarized interacting exciton gas in quantum wells and bulk semiconductors*
J. Fernández-Rossier, C. Tejedor, L. Munoz and L. Vina
Physical Review B **54**, 11582 (1996)

Referenced Conference Proceedings (14)

1. *Inelastic Electron Tunneling Spectroscopy of a Mn Dimer*
F. Delgado, **J. Fernández-Rossier**,
Acta Physica Polonica A 122, 304 (2012)
2. *Modelling optical spin pumping of a single Mn atom in a CdTe quantum dot*
C. L. Cao, L. Besombes, **J. Fernández-Rossier**
Journal of Physics, Conference Series **210** 012046 (2010)
3. *Zero-frequency shot noise in an artificial single molecule magnet*
L. D. Contreras-Pulido, **J. Fernandez-Rossier**, R. Aguado
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES **42**, 561-564 (2010)
4. *Hysteretic linear conductance in single electron transport through a single atom magnet*
J. Fernández-Rossier, R. Aguado
MATHEMATICS IN INDUSTRY **12**, 460-465 (2008)
5. *Electronic structure and transport properties of NiO spinvalves*
D. Jacob, **J. Fernández-Rossier**, J. J. Palacios
Journal of Magnetism and Magnetic Materials, **310**, 675 (2007)
6. *Anisotropic Magnetoresistance in single electron transport*
J. Fernández-Rossier, R. Aguado, L. Brey
Phys. Stat. Sol (c) **3**, 4231 (2006)
7. *Mn doped II-VI quantum dots: Artificial single molecule magnets*
J. Fernández-Rossier and R. Aguado
Phys. Stat. Sol (c) **3**, 3734 (2006)
8. *Spin properties of charged single Mn-doped quantum dots*
Y. Léger, L. Besombes, L. Maingault, **J. Fernández-Rossier**, D. Ferrand and H. Mariette,
Phys. Stat. Sol. (b) **243** 3912-3916 (2006)
9. *Optical control of the magnetization damping in ferromagnetic semiconductors,*
J. Fernandez-Rossier, Alvaro S. Núñez, M. Abolfath, and A. H. MacDonald,
Journal of Magnetism and Magnetic Materials **272-276**, 1913 (2004).
10. *Coherent control and four wave-mixing of Fermi edge singularities in doped quantum wells*
D. Porras, **J. Fernandez-Rossier** and C. Tejedor
Physica E**12**, 558 (2002)
11. *Exciton Coherent Control in semiconductor Quantum Wells*
J. Fernandez-Rossier, C. Tejedor and R. Merlin,
Journal of Physics: Condensed Matter, **11**, 6013 (1999)
12. *Condensation of 2D electron-hole pairs with spin degree of freedom*
J. Fernandez-Rossier and C. Tejedor,
Physica B, **249-251**, 714 (1998).
13. *Ferromagnetism in 2D exciton condensates,*
J. Fernandez-Rossier and C. Tejedor,
Physica Status Solidi **164**, 343 (1997)
14. *Spin Splitting of excitons in GaAs quantum wells at zero magnetic field*
E. Perez, L. Munoz, L. Vina, **J. Fernandez-Rossier**, C. Tejedor, K. Ploog
Solid State Electronics **40**, 755, (1996)

Chapters in Books

1. R. Aguado, **J. Fernández-Rossier**,
« *Magnetism and transport in Diluted Magnetic Semiconductor Quantum Dots* »,
Handbook of Spin Transport and Magnetism
ISBN-10: 1439803773
2. J. J. Palacios, **J. Fernández-Rossier**, L. Brey and H. A. Fertig,
« *Electronic structure of Graphene nanoribbons* », in Handbook of Nanophysics,
Functional Materials, edited by Klaus D. Sattler
ISBN :1420075527
3. M. Otero-Leal, F. Rivadulla, **J. Fernández-Rossier** and J. Rivas
« *Inhomogeneous magnetic states in manganites* », in *Magnetic Materials: Current
Topics in Amorphous Wires, Hard Magnetic Alloys, Ceramics, Characterization and
Modelling*
ISBN 978-81-308-0204-6
4. D. Porrás, **J. Fernandez-Rossier**, C. Tejedor
Exciton and Polariton Condensation in « *Quantum Coherence: from quarks to solids* »,
Springer, Heilderberg
Lect. Notes Phys. **689**, 153-189 (2006)
ISBN: 978-3-540-30085-4
5. **J. Fernandez-Rossier**, D. Porrás, C. Tejedor and R. Merlin,
Coherent Response to Optical Pulses in Quantum Wells.
p. 143 in "Optical Properties of Semiconductor Nanostructures", Ed. By M. L. Sadowsky,
M. Potemsky and M. Grynberg, Kluwer Academic Publisher, Netherlands 2000. ISBN:
978-0792363170
6. **J. Fernandez-Rossier** and C. Tejedor,
Spin effects in exciton condensation in quantum wells
"Physics of Semiconductors" (World Scientific. Singapore. 1999),
p. 121-128. Edited by David Gershoni
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Conference Proceedings

1. **J. Fernandez-Rossier**, C. Tejedor y R. Merlin,
Exciton Beats and Coherent Control, Technical Digest of QUELS' 99, p106
2. **J. Fernandez-Rossier**, C. Tejedor y R. Merlin,
Coherent Light Emission from Condensed Radiating Excitons,
Proceedings of the ICPS24 (1998), Jerusalem
3. **J. Fernandez-Rossier** and C. Tejedor
Many body effects in the spin polarized exciton liquid in a GaAs Quantum Well,
Proceedings of the 23 ICPS, vol. 3, p 2463, 1996

Talks and Seminars

Invited Talks and Lectures (46)

1. *Atomic Scale Electronics: from classical kilobytes to quantum bits*
Kenote speaker (30m) in NanoPortugal 2017, February 2nd 2017
2. *"Dissipative spin dynamics of correlated spin chains due to Kondo interactions on surfaces"*, 50m talk at Workshop on "Electron correlation and Kondo effect in transport measurements of atoms on surfaces", EWHA University, Seoul, September 30, 2016
3. *"Coherence of Spins on Surfaces: what it is, and how to use it"*, at the *Spins on Surfaces workshop, San Sebastian, September 5-9 2016*
4. *Topological phases driven by skyrmion crystals*, at the "Spin Orbit and Topology in low dimension" workshop, Spetses, Greece, June 29 2016
5. *Magnetic atoms on surfaces: from DFT calculations to model Hamiltonians.*
Invited talk (24m) at Korean Physics Society Meeting, Dajeon, Korea, April 21 2016
6. *Quantum Nanoscience, a theorist perspective*, invited talk (20m) at EWHA university workshop, Seoul, Korea, April 19 2016
7. *A graphene based nuclear spin quantum computer*, invited talk (30m) at the workshop on 2D materials at ICMOL, Valencia, December 4 2015
8. *Atomic scale magnetism: Deriving spin models from DFT calculations*, invited (60m) talk at IBM-Max-Planck workshop, in IBM research center, Almaden, California, September 21 2015
9. *Quantum Anomalous Hall phase in graphene coupled to skyrmions*, Invited talk (30m) at the Workshop "Interactions effects in Graphene", San Sebastian, Spain, July 16 2015
10. *Atomic scale magnets as open quantum systems*, Lecture (50m) at the Nicolás Cabrera summer school on New frontiers in Magnetism and Spintronics, July 12 2015
11. *Designer nanomagnets*, Invited talk (30m) at the 20th ICM (International Conference of Magnetsim), in Barcelona, July 10 2015
12. *Robust Orbital Nanomagnetism in Topological Semiconductor Nanostructures*
Invited talk (30m) at the e-MRS 2015, Lille, France, May 13th 2015
13. *Designer Nanomagnets*
Invited talk (30m) at the "XI Jornadas Científicas del Instituto Universitario de Materiales de la UA", January 22, 2015
14. *Orbital Nanomagnets*
Invited talk at the workshop "2D Materials", in Gandía, October 29, 2014
15. *Designer Nanomagnets*
Keynote speaker talk at TNT2014, Barcelona, October 27, 2014
16. *STM Imaging of spin excitations in nanoengineered spin chains*
Invited (40m) talk at the DIPC workshop on SPM, San Sebastian, Sept 11-12, 2014
17. *The emergence of classical behavior in magnetic adatoms*
Invited Talk at the 5th Spin Polarized STM conference, Huron, Ohio, July 15-19, 2014
18. *Adatom spin chains*
Invited talk (30m) at MRS Spring Meeting, San Francisco, April 22, 2014
19. *Atomic Scale Spintronics*
Invited Lecture (75m) at the "Novel Frontiers in Magnetsim" School, Benasque (Spain), February 10-14, 2014

- 20. *Dynamics of Localized spins in solids***
Invited lecture (75m) at the 3rd Spin and Charge dynamics School, Cluj, July 8-12, 2013
- 21. *Spintronics in Graphene***
Invited talk (20m) at the « Portugal and the graphene flagship » workshop, Braga, June 18, 2013
- 22. *Electronic properties of MoS₂, WS₂ and their heterostructures***
Invited talk (45m) at the « Novel 2D materials » workshop, Bremen, June 10-14, 2013
- 23. *Anisotropic Intrinsic Spin relaxation in graphene***
Invited talk (30m) at « Graphene Nanostructures » workshop, Antwerp, May 21-24, 2013
- 24. *Spin Physics in two dimensional materials : from graphene to MoS₂***
Keynote talk at 1st edition of NanoPortugal, Porto, February 13-15, 2013
- 25. *Spin Physics in Graphene***
II Congreso Nacional de Nanotecnología, Universidad Federico Santa Maria, Valparaiso, Chile, October 5 2012
- 26. *Atomic scale spin engineering (2 lectures)***
V Escuela de Nanoestructuras, II Congreso Nacional de Nanotecnología, Universidad Federico Santa Maria, Valparaiso, Chile, October 5 2012
- 27. *The quantum to classical transition explored with magnetic adatoms***
Summer Meeting on Condensed Matter Physics and Chemistry, Universidad de Santiago de Compostela, July 12-13, 2012
- 28. *Magnetism at the edge and the surface of topological insulators***
CECAM Workshop, January 9 2012
- 29. *Exotic electronic phases in graphene nanostructures,***
2nd New generation Strongly Correlated Electron Systems Meeting, Santiago de Compostela, July 5 2011
- 30. *Spontaneous Persistent Currents in graphene nanostructures,*** 3rd Nanomediterranean Workshop, Palma de Mallorca, June 10 2011
- 31. *Magnetism and Spintronics in Graphene nanostructures,***
57th AVS conference, Albuquerque (NM), October 2010
- 32. *Magnetism and Spintronics in Graphene nanostructures,***
Les Houches School of Physics, Frontiers in Condensed Matter Physics, September 2 2010
- 33. *Spin Torque transfer on a single atom,***
Nordicspin 2010 workshop, Gimo, May 7, 8 2010
- 34. *Magnetism and Spintronics in graphene nanostructures,***
CECAM workshop, Lausanne, October 15th, 2009.
- 35. *Magnetism in graphene nanostructures,***
Asianano 2008, Singapore, 1-4 Nov 2008
- 36. *Contrôle électrique d'un seul atome magnétique,***
RTRA Inauguration workshop, Grenoble, France, 19-9-08
- 37. *Single Mn doped quantum dots: from CdTe to InAs.***
CECAM Workshop, Lyon, France, June 2008
- 38. *Magnetism in Graphene nanostructures,***
Nordic Spin Workshop, Gimo, Sweeden, 22-24 April 2008
- 39. *Theory of Mn-doped CdTe Quantum Dots,***
13th International Conference of II-VI compounds, Jeju, South Korea, September 12 2007

40. *Electrical control of single Mn atom in a quantum dot*,
Optical Properties of Low Dimensional Systems International Workshop, Ottawa, May 30 2007
41. *Control of a single Mn atom in a quantum dot*,
International Workshop of Quantum Dot Spintronics, Bochum, Germany. 6-7 December 2006
42. *Electrically Tunable nanomagnets*
14th European Conference on Mathematics for Industry, Leganés, 14 July 2006
43. *Single exciton and single electron spectroscopy in Mn-doped quantum dots*
4th International Conference of Quantum Dots, Chamonix, May 2006;
44. *Coherently Photoinduced Ferromagnetism in Diluted Magnetic Semiconductors* 9th
International Conference of Excitons in Confined Systems, Southampton, September 7 2005
45. *Ferromagnetism mediated by a few electrons in semimagnetic quantum dots*
G.E.F.E.S. meeting, San Sebastian, Spain, June 2004
46. 2nd Int. Workshop on Nanophysics and Electronics Lecce, Italy, Nov.98.
Coherent Control of Excitons in Quantum Wells

Other Talks

More than 10 talks at APS March Meeting (not listed).

1. Contributed Talk in the CMD25/JMC14, Paris, August 25-29, 2014
Magnetism and spin relaxation in spin filtered ballistic edge states in graphene quantum Hall bars
2. Contributed Talk in the Graphene2013-Imagine Nano, Bilbao, April 25 2013
Electronic properties of MoS₂/WS₂ heterostructures
3. Contributed Talk in the 12th International Conference of Nanoscience and Nanotechnology, Paris, July 22-7 2012
Spin Parity effects in atomic scale spintronics
4. Contributed Talk in the 47th Conference on Magnetism and Magnetic Materials, Tampa (FL), Nov. 2002
Current Tuned Spin waves in Ferromagnetic semiconductor
5. Contributed Talk at the QUELS conference, Baltimore, USA, May 1999
Coherent Control and Exciton Beats in semiconductor Quantum Wells

Invited Seminars (45)

1. *Electrical control of surface spins*
Seminar at the EPFL, Lausanne, January 24 2017
2. *Universal Mechanism for spin resonance of individual atoms on surface*
Condensed Matter Physics seminar at the Department of Physics, Oxford University, November 25 2016
3. *Orbital Nanomagnets*
Seminar at the London Centre For Nanotechnology, March 17 2015
4. *Designer nanomagnets*
Invited seminar at the Condensed Matter Physics Department, Universidad Autónoma de Madrid, December 5 2014
5. *Magnetic graphene*
Seminar at the London Center for Nanotechnology, November 19 2014

6. *Magnetic graphene*
Seminar at the Physics Department, Johannes Gutenberg University, Mainz, Germany, November 13 2014
7. *Electronic properties of nanographenes*
Seminar at the CIQUS, U. de Santiago de Compostela, November 7 2014
8. *Two tales on spin physics in 2D crystals*
Seminar at the ICMN-CSIC, Madrid, July 14 2014
9. *Two tales on magnetic anisotropy*
Seminar at the ICN2, Barcelona, February 12 2014
10. *Designer nanomagnets : from classical magnetism to fractionalization*
Seminar at the London Center for Nanotechnology, Feb. 6 2014
11. *Atomic scale electronics*
Colloquium at the IST Physics Department, Lisbon, Oct 16 2013
12. *Spin orbit physics in 2D crystals*
Condensed Matter Seminar, IST, Lisbon, Oct 16 2013
13. *Atomic scale electronics*
Colloquium at the Centro de Fisica, Universidade do Minho, Braga, May 15, 2013
14. *Spin effects in graphene*
Seminar at the ICMN-CSIC, Madrid, Spain, June 19 2012
15. *Understanding single spin Inelastic Electron Tunneling Spectroscopy* Seminar at Halle Max Planck Institute of Microstructure Physics, May 9, 2012
16. *Single spins on surfaces: the role of the substrate,*
Seminar at the Physics Department of the Freie Universität of Berlin, May 7th, 2012
17. *Spin parity effects in atomic scale spintronics*
Seminar at the Universidade do Minho, Braga, Portugal
March 2012
18. *Spin parity effects in atomic scale spintronics*
Seminar at the Institute Neel, CNRS, Grenoble
January 12th 2012
19. *Spintronics at the Atomic Scale*
Colloquium at the School of Physics, University of Melbourne
February 16th 2011
20. *Understanding Inelastic Single Spin STM spectroscopy*
Seminar in the Hamburg University Applied Physics Department, November 15th 2010
21. *Probing, Manipulating and controlling a single atom spin with STM currents*
Seminar in Los Alamos National Lab, October 18 2010
22. *Spintronics and Magnetism in Graphene Nanostructures*
ICN-CIN2, Barcelona, June 2 2010
23. *Aislantes Topológicos*
Ciclo de Seminarios del Departamento de Estadística e Investigación Operativa, Universidad de Alicante, May 6 2010
24. *Probing and manipulating the spin of a single atom with non-equilibrium carriers*
Department of Physics, University of Münster, January 14th, 2010

25. *Probing and manipulating the spin of a single atom with tunneling electrons*, Institute Neel, CNRS, Grenoble, July 7 2009.
26. *Probing the spin of a single atom with tunneling electrons*, Departamento de Física Teórica de la Materia Condensada, Universidad Autónoma de Madrid, April 15 2009.
27. *Magnetism and spintronics in graphene nanostructures*
"Séminaire Nanoélectronique Quantique" in Neel Institute, CNRS Grenoble, September 16, 2008
28. *Magnetism in graphene nanostructures*
Seminar in EPFL, Lausanne, March 28 2008
29. *Single Mn doped QD: from CdTe to In As*
Seminar in Neel Institute, Grenoble, March 26 2008
30. *Single Mn doped QD: from CdTe to InAs*
Seminar in TU Eindhoven, Nov 2007
31. *Control of a single magnetic atom in a Quantum Dot*
Seminar in Physics Department, Hamburg, Oct 2007
32. *Graphene Ribbons: electronic structure and transport*
NSEC Seminar in Columbia University, June 2007
33. *Electrically Tunable nanomagnets*
Seminario Alternativo ICMM, Madrid, 14 June 2006
34. *Tunable Nanomagnets*
Seminar at CEA, Grenoble, October 21 2005
35. *Tunable Nanomagnets*
Seminar at the Department of Physics University of California San Diego, August 17 2005
36. *Optical and electrical control of a few spins in semimagnetic nanocrystals*
Seminar Lorenz Institute, Leiden University, June 3th 2005
37. *Electrically Tunable Nanomagnets*
Nanoscience Seminar, Delft University, June 1th 2005
38. Seminar in the Department of Physics of University of Texas A&M, Dec 2002
Laser control of diluted magnetic semiconductors
39. Seminar in the Applied Physics Department of University of Alicante (Spain), Dec. 2001
Heteroestructuras de materiales semiconductores ferromagneticos
40. Seminar in the Department of Physics of UCSB, April 27, 2001
Ferromagnetism in GaAsMn
Seminar in the Cavendish Laboratory, University of Cambridge, England, April 2001
Ferromagnetism in GaAsMn
41. Seminar in the Department of Physics, University of Texas at Austin, May 2001.
Tailoring the spin interactions in artificial structures
42. Seminar in the Department of Physics, Technical University of Eindhoven, Netherlands, April 2001
Ferromagnetism in GaAsMn heterostructures
43. Colloquium in California State University Los Angeles, May 18, 2000
Coherent Control in Semiconductors
44. Seminar in the Ecole Polytechnique Federale de Lausanne, Switzerland, December, 18 1998
Coherent Control and Rayleigh Scattering in exciton Quantum Wells

Short stays

- London Center for Nanotechnology, UCL, United Kingdom. 4 days in March 2015
- London Center for Nanotechnology, UCL, United Kingdom. 5 days in November 2014
- Max Planck Institute of Microstructure Physics, Halle, Germany. 5 days in May 2012.
- Institute Neel, CNRS, Grenoble, France. 5 days in September 2010
- Institute Neel, CNRS, Grenoble, France. 5 days in July 2009
- Institute Neel, CNRS, Grenoble, France. 5 days in September 2008
- Institute Neel, CNRS, Grenoble, France. 10 days in March 2008
- Department of Physics, University of California San Diego, 4 weeks in August 2005
- Department of Physics, University of California San Diego, 2 weeks in July 2002
- Department of Physics, University of California San Diego, 2 weeks in March-April 2002
- Department of Physics, University of Michigan, Ann Arbor, USA, May 1999
- Ecole Polytechnique Federale de Lausanne, Switzerland, December 1998

Teaching and mentoring

Lectures

10-11

Physics 002 for 1st year Chemistry students. Number of students: 50. I developed a series of class demonstrations (a non-standard practice in Spain), created my own blog for this course (<http://blogs.ua.es/fisicaciencias/>) including recordings of the demonstrations.

04-05, 05-06, 06-07, 07-08, 08-09,09-10

Physics 001 for 1st year Chemical Engineers, UA. Average number of students: 40. I created my own set of lecture notes and list of problems. I created a web to facilitate the interaction with students.

07-08,08-09, 09-10, 10-11, 11-12, 12-13,13-14, 14-15, 15-16

Introduction to Molecular Magnetism, Master of Molecular Nanoscience, UA. Average number of students: 20. I created my own lecture notes, as well as Mathematica codes to permit the students learn by doing simple calculations with spin model Hamiltonians. I keep lecturing this class after moving to INL.

08-09, 09-10, 10-11

Solid State Physics, Master of Molecular Nanoscience UA. I taught an introduction to Solid State Physics for non-physicist.

Sept. 98 - Aug. 99

Teaching Assistant, (*Optics and thermodynamics* Laboratory for Physics undergraduates in their third year), Universidad Autónoma de Madrid

Feb. 98 - Sept. 98

Teaching Assistant, (*Electronic Laboratory* for Physics undergraduates in their fourth year), Universidad Autónoma de Madrid

Supervision of students and postdoctoral researchers

Graduate Students

1. Noel García Martínez, January 2014- , INL student, enrolled in PhD program, Universidad de Alicante
2. José Luis Lado, October 2013- July 2016, INL student, enrolled in PhD program, U. Santiago. Graduated July 22 2016. PhD thesis: *"Topological phases in grapheme"*
3. Daniel Gosálbez Martínez, UA, 2008-2013. Phd thesis: *"Spin Physics in two-dimensional systems"*. Co-supervisor: J. J. Palacios.
Date of presentation: December 13 2013, Universidad de Alicante.
Current position: postdoctoral researcher at UPV-CSIC, San Sebastian
4. Chong Long Cao, 2008-2012. PhD student both at UA and UJF in Grenoble.
PhD thesis: *"Modélisation de la dynamique de spin d'un atome magnetique individuel dans un boîte quantique"*. Co-supervisors Henri Mariette, L. Besombes 13/01/2012. Current position: postdoctoral researcher at Hong Kong University.
5. David Soriano Hernández, UA, (2008-2011).
PhD thesis: *"Spin physics in graphene-based materials"*. Co-supervisor: Juan José Palacios. Current position: postdoctoral researcher at ICN, Barcelona.
6. Federico Muñoz Rojas, UA (2006-2009).
PhD thesis: *"Transporte electrónico en Cintas de grafeno"*. Co-supervisor: Juan José Palacios. Current position: Associate Researcher at Universidad de Costa Rica.

Postdoctoral Researchers

1. Pawel Potasz, May-November 2014
2. Alejandro Ferrón, INL fellow, September 2013-August 2015
3. Fernando Delgado, UA postdoc (2008-11), INL fellow (2011- November 2014)
4. Krzysztof Kosmider, INL fellow, March 2012-December 2014.
Next position: postdoc at UAM, Madrid, Spain
Current position(2015): postdoc at Prague
5. Jhon W. González, INL fellow, November 2011- September 2013.
Next position: postdoc at UFM, San Sebastian (Spain)

Master, undergrad and visiting students

1. Ricardo Ortíz (December 2015-), master student of Universidad de Alicante. One joint paper in PRB. Master thesis
2. Alejandro Roldan (Fall 2012), PhD Student of Universidad de Chile, visiting 2 months at INL. 2 joint papers published in PRB, 1 in NJP.
3. José Luis Lado (summer 2012), summer student project at INL. Published a PRB paper. As of October 2013 he started as PhD student in my group.
4. Ken López (summer 2012), summer MIT student project at INL. Published an APL paper.
5. Joost Van Brie (fall 2007). BSc thesis student from TU Eindhoven. Published a PRB paper.
6. Guillermo Quinteiro (spring 2006). PhD Student from Michigan State University. Published a PRL paper.

References

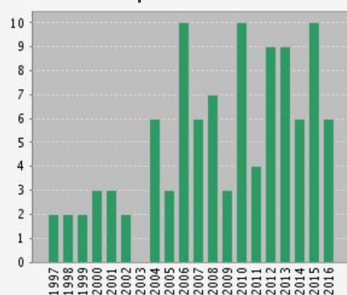
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Buscó: **Autor:** (fernandez-rossier J OR fernandezrossier J OR fernandez*rossier J NOT ferman J) ...Más

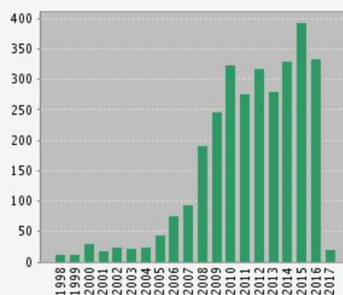
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