

CURRICULUM VITAE

PEDRO MIGUEL ECHENIQUE LANDIRIBAR

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1. ABSTRACT OF CURRICULUM VITAE

1.1 PERSONAL DATA

Name: PEDRO MIGUEL ECHENIQUE LANDIRIBAR
DOB / birthplace: June 8, 1950; Isaba (Navarra), Spain
Nationality: Spanish
Education: BS - Universidad de Navarra, Spain
Ph.D. - Cambridge (UK)
Ph. D - Universidad de Barcelona, Spain
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Website: <http://dipc.ehu.es/Echenique/index.htm>

1.2. ACADEMIC DEGREES

- B.S. Physical Sciences, Universidad de Navarra, 1972.
- Ph. D., Cambridge, 1976.
- Doctor of Physical Sciences, Universidad Autónoma de Barcelona, 1977.
- Doctor of Science, Cambridge, 1998.

1.3. PROFESSIONAL EXPERIENCE

Current Post:	Chair in Physics, Universidad del País Vasco UPV/EHU.
1976	Doctoral Fellow, Cambridge.
Since 1976	Consultant to the Oak Ridge National Laboratory, Oak Ridge, Tennessee, USA.
1977	Doctoral Fellow, Universidad de Barcelona.
1976 - 77	Visiting Research Fellow, Oak Ridge National Laboratory (USA), Bohr Institute (Denmark), and the University of Lund (Sweden).
1978 - 80	Visiting Chair in Solid State Physics, Universidad de Barcelona.
1980 - 83	Education Minister to the Basque Government.
1983 - 84	Education and Culture Minister and Spokesman, Gobierno Vasco.
May 84-Sept.86	Visiting Professor, Cavendish Laboratory, Cambridge.
1985	Overseas Fellow, Churchill College, Cambridge.
1999 - 2001re	Director of the Interdisciplinary Center CSIC-UPV/EHU (University of the Basque Country)
1999 -	Founding President, "Donostia International Physics Center"
2006-	President of the Board of Trustees, CIC-Nanogune
2007- 2012	President of Jakiunde. Academy of Sciences, Humanity and Arts
2007-	Vice-president of Innobasque
2011-	Vice-president of Fundación Euskampus
2011-	Member of the Scientific Advisory Committee of Consorcio ESS-BILBAO
2012	President of Honor of Jakiunde, Academy of Sciences, Humanity and Arts

1.4. PRIZES AND DISTINCTIONS

- *Premio Extraordinario de Licenciatura*; June, 1972.
- National Graduation Prize in the Physical Sciences, awarded Nov. 24, 1973.
- Prize for Doctoral Distinction (Universidad Autónoma de Barcelona). Awarded May, 1978.
- Overseas Fellow. Churchill College, Cambridge. Conferred in 1985.
- Corresponding member of the Royal Spanish Academy of Sciences.
- Corresponding Member of the Royal Academy of Arts and Sciences of Barcelona.
- Numerary Member, Royal Basque Society of Friends of the Basque Country.
- Gold Medal of the basque Government, 1990.
- Fellow of the American Physical Society (FAPS), 1990.
- Member of the Scientific Advisory Board of the BBV Foundation, 1990.
- Adviser in Science and Technology. Vice President, Iberdrola, S.A. 1993-2003
- *Who's Who in the World*. 1993; *Dictionary of International Biography* - 23d edition.
- Recipient of the Iberdrola, S.A. Visiting Professor's Program Grant 1993.
- *Who's Who in Science and Engineering* 1994.
- *Five Thousand Personalities of the World* 1994.
- Governing Board of the Summer Program UPV/EHU 1994-
- Xabier María de Munibe Prize, 1995.
- Member of the Trilateral Commission 1996-
- Member of the Excellency Board of Eusko Ikaskuntza-Sociedad de Estudios Vascos. 1996-
- Elected Scientific Member of the Bosmiche Physical Society, Cornell University, 1996.

- Basque Country Prize for Research (*Premio Euskadi de Investigación*), 1996.
- Dupont Science Prize 1996.
- Board of Directors "Zientzia 21" for founding an interactive Museum of Science in San Sebastián.
- Prince of Viana prize for Culture, 1997.
- Sociedad Grupo Correo Prize, 1997.
- "Basques without Borders", COINPASA, (1997).
- Member of the Scientific Committee of the Scientific Park of Barcelona.
- Prince of Asturias Prize for Scientific and Technical Research, 1998.
- Gold Medal of the University of the Basque Country (UPV/EHU), 1998.
- Favored Son Award of the Municipality of Isaba, 1998.
- Max Planck Physics Prize, 1998.
- Member, USA-Spain Council. 1999-2004
- Grand Cross of the Civilian Order of Alphonse the Wise, 1998.
- Korrika. Omendua, 1999.
- Award for Universal Basque of the Year 1998.
- Doctor of Science. Cambridge University, 1998.
- Member with Honor and Merit, *Cofradía de la Anchoa*, San Sebastian, May, 1999.
- Brotherhood of Gaztamberra, Elizondo June 1999.
- Prize of the Spanish Society of Materials, 1999.
- *Galardón Arbol de la Ciencia*. CSIC. 1999.
- Gold Medal of the City of San Sebastián (*Donostia*) 2000.
- Honorary Physicist, COFIS (*Colegio Oficial de Físicos de España*), 2000.
- *Doctor Honoris Causa*, Universidad de Valladolid. Spain 2000.
- Fellow of the American Society for the Advancement of Science, FASAS, February, 2001.

- Trustee, The Institute of European Peoples, Basque Foundation.
- Spokesman of the Governing Council, Superior Council of Scientific Research (*Consejo Superior de Investigaciones Científicas*) (CSIC), April 2001-2007
- Member, Strategic Planning Commission of the City of San Sebastián 2001.
- Beneficiary of the “High Performance” Project of the Basque Government. December, 2001.
- Trustee of the Rafael Escolá Foundation.
- Iberdrola Prize for Science and Technology, 2002.
- Prize for Intellectual Elegance of 2002. Spanish College of Tailors.
- Testimonial Nafarroa Oinez, 2002.
- *Eusko Label Kalitatea* Prize, 2002.
- Gold Medal, Royal Spanish Society of Physics, 2003.
- Manuel Irujo Prize. Irujo House Foundation. Estella, Navarre, 2003.
- Member of the Grand Council and Knight of Honor of the Order of the Olive of Navarre, 2004.
- Confrère of Honor of the Confraternity of Roncal Cheese, Roncal 2004.
- Distinguished Visiting Professor of the *Universidad Autónoma Metropolitana de México*, April 3-9, 2005.
- The Blas Cabrera National Prize in Physics, Materials and Earth Sciences 2005.
- The Diario Vasco. com Prize for Scientific Research 2005
- Honorary member of BD/BN 2005
- Gold medal of Gipuzkoa 2006
- *Doctor Honoris Causa*, Universidad Pública de Navarra. Spain 2008.
- Foreign Member of the Académie Royale des Sciences, des Lettres et des Beaux-Arts de Belgique 2009
- Member of the International Advisory Board of the Campus of Excellence of the University of Oviedo 2010-
- Manel Xifra Boada de Comunicación Científico-Técnica prize 2010
- Sabino Arana Prize 2011

- Member of the Board of Graphenea SA 2011-

1.5. FELLOWSHIPS, GRANTS

- Fellow of the Juan March Foundation, for his first year as "Research Student" in the "Theory of Condensed Matter" Group at the Cavendish Laboratory, Cambridge, UK, 1973 - 1974.
- Fellow of the José María Aristrain Foundation during subsequent years at Cambridge, 1974-75, '75-'76.
- Fellow of the British Council, August, 1978 for continued work at the Cavendish Laboratory, Cambridge.
- Grant from the *Deutscher Akademischer Austauschdienst* DAAD, to visit Germany (Munich) in April y July of 1978.
- Special Operation Grant from the Juan March Foundation 1984 - 86.

1.6. TEACHING AND RESEARCH

- Assistant to the Physics Chair II – Mechanics in the Department of Physical Sciences of the *Universidad de Navarra* (1970 - 1971).
- Assistant to the Chair in Thermodynamic Physics and Statistical Mechanics of the Department of Physical Sciences of the *Universidad de Navarra* (1971 - 1972).
- Assistant Profesor in the Department of Electricity and Electronics at the *Universidad Autónoma de Barcelona* (1972 - 1973).
- "Research Student" at the *Theory of Condensed Matter Section* of the Cavendish Laboratory, Cambridge (1973 - 1976).
- Postdoctoral Fellow of the *Health Physics Group* at the Oak Ridge National Laboratory (October-December, 1976).

- Visiting Researcher at the *Institute of Theoretical Physics* at the University of Lund (Sweden) and for the *Inter-scandinavian Physics Group* (NORDITA), at the Bohr Institute, Copenhagen, January-June, 1977.
- Visiting Research Fellow at Chalmers University, Goteborg (Sweden), June-December, 1977.
- Adjunct Professor and Director of the *Solid State Physics Group* of the *Universidad de Barcelona*, October, 1977-March, 1978.
- Chaired Professor and Director of the *Solid State Physics Group* of the *Universidad de Barcelona* (since April, 1978).
- DAAD Research Fellow, *Ludwig-Maximilians-Universität* (Munich), July, 1978.
- British Council Research Fellow, *Cavendish Laboratory*, Cambridge, August, 1978
- September, 1978, Consulting Research Fellow, *Oak Ridge National Laboratory*
- August-September 1979, Consulting Research Fellow, *Oak Ridge National Laboratory*; *University of California, Berkeley*; and *Cavendish Laboratory*, Cambridge.
- May-June, 1984; June, 1985; May-June, 1986; Research Fellow, *Oak Ridge National Laboratory*
- May, 1984-September, 1986, Senior Visiting Fellow, *Cambridge Laboratory*, Cambridge.
- 1985, Elected Overseas Fellow, *Churchill College*, Cambridge
- May-June, 1987, Visiting Professor, *Oak Ridge National Laboratory* and *University of Tennessee*,
- July, 1987, Visiting Professor, *Cavendish Laboratory*, Cambridge.
- March, 1988, Visiting Professor. *Oak Ridge National Laboratory*
- November, 1988, Visiting Professor, *Centro Atómico de Bariloche* (Argentina)
- April-June, 1989, Visiting Professor, *Oak Ridge National Laboratory*.
- August, 1989, Visiting Professor, *Centro Atómico Bariloche*
- October, 1990, Visiting Professor, *Oak Ridge National Laboratory*
- June, 1990, Visiting Professor, *Oak Ridge National Laboratory*
- June, 1995, Visiting Professor, *Oak Ridge National Laboratory* and at the *Universidad Autónoma Metropolitana de México*

- January, 1999–March, 2001, Director of the Interdisciplinary Center, CSIC-UPV/EHU (University of the Basque Country)
- 1999, President of *Donostia International Physics Centre Foundation*

1.7. FURTHER ACHIEVEMENTS IN TEACHING AND RESEARCH

Courses Taught Including Graduate Instruction

CENTRO/ORG.	MATERIA	FECHA
Univ. Barcelona	Solid State I	1977 –1980
Univ. Barcelona	Electricity and Optics	1977 –1979
Univ. Barcelona	LEED. Applications in the Study of Surfaces	1977 –1978
Univ. Barcelona	Electrons in Solids	1978 –1979
Univ. Barcelona	Interaction of Charged Particles in Electron Plasma	1979 –1980
UPV/EHU	Mechanics	1986 –1987
UPV/EHU	Electrons in Solids	1987 –1988
UPV/EHU	Cohesion	1987 –1988
UPV/EHU	Band Theory	1988 –1989
UPV/EHU	Cohesion	1988 –1989
UPV/EHU	Superconductivity	1988 –1989
UPV/EHU	Electrons in Solids	1989 –1990
UPV/EHU	Superconductivity	1989 –1990
UPV/EHU	Electrons in Solids	1990 –1991
UPV/EHU	Bonds and Cohesion	1990 –1991
UPV/EHU	Interaction of Ions and Electrons with Matter	1991 –1992
UPV/EHU	Materials Physics I (Bonds and Cohesion)	1992 –1993
UPV/EHU	Materials Physics II (Electrons in Solids)	1993 –1994
UPV/EHU	Electron Structure of Solids	1994 –1995
UPV/EHU	Physics of Surfaces	1995 –1996
UPV/EHU	Electron Properties of Solids	1996 –1997

UPV/EHU	Electrons of Surfaces	1997 –1998
UPV/EHU	Electrons of Solids	1998 –1999
UPV/EHU	Superconductivity	1998 –1998
UPV/EHU	Concepts in Materials Physics	1999 –2000
UPV/EHU	Physics of Electrons in Solids y Surfaces	2000 - 2001
UPV/EHU	Concepts in Materials Physics	2001-2002
UPV/EHU	Physics of Electrons in Solids and Surfaces	2001-2002
UPV/EHU	Concepts in Solid State Physics	2002-2003
UPV/EHU	Concepts in Materials Physics	2003-2004
UPV/EHU	Introduction to the quantum phenomena: Radiation and Matter	2004/2005
UPV/EHU	Physics of Electrons in solids and surfaces	2004/2005
UPV/EHU	Introduction to the quantum phenomena: Radiation and Matter	2004/2005
UPV/EHU	Physics of Electrons in solids and surfaces	2004/2005
UPV/EHU	Introduction to quantum physics	2005/2006
UPV/EHU	Physics of Electrons in solids and surfaces	2005/2006
UPV/EHU	Introducción a los Fenomenos Cuánticos: Radiación y Materia	2006-2007
UPV/EHU	Física II	2007-2008
UPV/EHU	Introducción a los Fenomenos Cuánticos: Radiación y Materia	2007-2008
UPV/EHU	Nanoscience: A historical Perspective	2007-2008
UPV/EHU	Fundamentals of Solid State	2007-2008
UPV/EHU	Nanoscience: A historical Perspective	2008-2009
UPV/EHU	Fundamentals of Solid State	2008-2009
UPV/EHU	Física II	2009-2010
UPV/EHU	Nanociencia: una perspectiva histórica	2009-2010
UPV/EHU	Introducción a los fenomenos cuánticos radiación y materia	2010-2011
UPV/EHU	Nanociencia: una perspectiva histórica. Fundamentos de	2010-2011
UPV/EHU	Física del Estado Sólido	2010-2011
UPV/EHU	Nanociencia: una perspectiva histórica.	2011-2012
UPV/EHU	Fundamentos de Física del Estado Sólido	2011-2012

2. PUBLICATIONS

2.1 PUBLICATIONS IN INTERNATIONAL JOURNALS (* Proceedings)

Orthographical Note: Entries of the author's surname occur under two variant spellings: the Spanish, *Echenique*; and Basque, *Etxenike*.

1. P.M. Echenique and J.B. Pendry
"Absorption Profile at Surfaces"
J. Phys. C 8, 2936 (1975)
2. P.M. Echenique and J.B. Pendry
"Reflectivity of Liquid 4He Surfaces to 4He Atoms"
Phys. Rev. Lett. 37, 561 (1976)
3. P.M. Echenique and J.B. Pendry
"Scattering of 4He Atoms from the Surface of Liquid 4He at 30 mK"
J. Phys. C 9, 3183 (1976)
4. P.M. Echenique
"Role of the Potential in LEED; Application to the Na (110) Surface"
J. Phys. C 9, 3193 (1976)
5. R.H. Ritchie, Werner Brandt and P.M. Echenique
"Wake Potential of Swift Ions in Solids"

- Phys. Rev. B 14 , 4808 (1976)
6. S. Andersson, J.B. Pendry and P.M. Echenique
"Low Energy Electron Diffraction from Na (110) and Na₂O (111) Surfaces"
 Surf. Sci. 65, 539 (1977)
 7. P.M. Echenique and D. Titterington
"An Investigation of the Influence of the Potential in LEED Structural Determination"
 J. Phys. C 10, 625 (1977)
 8. F. Soria, J.L. Sacedon, P.M. Echenique and D. Titterington
"LEED Study of the Epitaxial Growth of the Thin Film Au (111) / Ag(111) System"
 Surf. Sci. 68, 448 (1977)
 9. P.M. Echenique and J.B. Pendry
"The Existence and Detection of Rydberg States at Surfaces"
 J. Phys. C 11, 2065 (1978)
 10. T.L. Ferrell, P.M. Echenique and R.H. Ritchie
"Friction Parameter of an Ion near a Metal Surface"
 Solid State Comm. 32, 419 (1979)
 11. M.A. Van Hove and P.M. Echenique
"On Layer Spacing Relaxations at Surfaces of Ionic Crystals"
 Surf. Sci. 82, L 298 (1979)
 12. N. Barberan, P.M. Echenique and J. Viñas
"Image Force for a Particle Moving Near a Solid Surface"
 J. Phys. C 12, L 111 (1979)
 13. R.H. Ritchie, P.M. Echenique, W. Brandt and G. Basbas
"Plasmons, Wakes and Clusters"
 IEEE Transactions on Nucl. Sci. NS-26, No. 1, 1001 (1979)
 14. P.M. Echenique, R.H. Ritchie and Werner Brandt
"Spatial Excitation Patterns Induced by Swift Ions in Condensed Matter"
 Phys. Rev. B 20, 2567 (1979)
 15. N. Barberán and P.M. Echenique
"Comment on the Plasmon Model for Image Potential Induced Surface States"
 Phys. Rev. B 19, 5431 (1979)
 16. P.M. Echenique and R.H. Ritchie
"Ioi Lasterren Wake Potentziala Egoera Solidoan"
 Elhuyar 17, 1 (1979)
 17. M. A. Van Hove and P.M. Echenique
"Reply to 'On Layer Spacing Relaxations at Surfaces of Ionic Crystals'"

Surf. Sci. V 88, L11 (1979)

18. J. Tejada, P.M. Echenique, O.H. Crawford and R.H. Ritchie
"Wake Shifts in Electron States on Swift Ions Passing through Solids"
Nucl. Instrum. Meth. 170, 249 (1980)
19. P.M. Echenique and R.H. Ritchie
"Wake Binding Energies in the Random-Phase Approximation"
Phys. Rev. B 21, 5854 (1980)
20. R.Núñez, P.M. Echenique and R.H. Ritchie
"The Energy Loss of Energetic Ions Moving near a Solid Surface"
J. Phys. C 13, 4229, (1980)
21. P.M. Echenique, J. Viñas, A. Howie and R.H. Ritchie
"Potential Screening Effects from Support Films in Electron Microscopy"
J. Phys. D 13, L 115, (1980)
22. P.M. Echenique, R.M. Nieminen and R. H. Ritchie
"Density Functional Calculation of Stopping Power of an Electron Gas for Slow Ions"
Solid State Comm. 37, 779, (1981)
23. P.M. Echenique, R.H. Ritchie, N. Barberan and J.C. Inkson
"Semiclassical Image Potential at a Solid Surface"
Phys. Rev. B 23, 6486 (1981)
24. R.H. Ritchie and P.M. Echenique
"Quantum Theory of the Charged Particle Wake"
Ann., Israel Phys. Society 4, 245 (1981)
25. F. Guinea, F. Flores and P.M. Echenique
"Charge States for Protons Moving in an Electron Gas"
Phys. Rev. Lett. 47, 604 (1981)
26. J.C. Ashley, R.H. Ritchie and P.M. Echenique
"Spatial Dispersion Effects in the Interaction between Metal Surfaces"
Solid State Comm. 40, 599 (1981)
27. R.H. Ritchie and P.M. Echenique
"The Wake of Charged Particles in Condensed Matter"
Philos. Mag. A 45, 347 (1982)
28. P.M. Echenique, J.C. Ashley and R.H. Ritchie
"Coherent States and the Interaction of Swift Ions with Condensed Matter"
European J. Phys. 3, 25 (1982)
29. F. Guinea, F. Flores and P.M. Echenique
"Charge States for H and He Moving in an Electron Gas"

- Phys. Rev. B 25, 6109 (1982)
30. A. Mazarro, P.M. Echenique and R.H. Ritchie
"Charged Particle Wake in the Random-Phase Approximation"
Phys. Rev. B 27, 4117 (1983)
 31. Del Moral, A., P.M. Echenique and J.A. Corrales
"Effects of Screening on Crystal Field Magnetoelastic Coupling in Rare Earth Intermetallic Compounds"
J. Phys. C 16, 4637 (1983)
 32. P.M. Echenique and A. Howie
"Image Force Effects in Electron Microscopy"
Ultramicroscopy 16, 269 (1985)
 33. J.C. Ashley and P.M. Echenique
"Influence of Damping in an Electron Gas on Wake Binding Energies"
Phys. Rev. B 31, 4655 (1985)
 34. P.M. Echenique
"Dispersion Effects in the Excitation of Interfaces by Fast-Electron Beams"
Philos. Mag. B 52, L 9 (1985)
 35. R.H. Milne and P.M. Echenique
"The Probability of MgO Surface Excitation with Fast Electrons"
Solid State Comm. 55, 909 (1985)
 36. P.M. Echenique
"Image-Potential Induced States, Binding Energies and Life Times"
J. Phys. C 18, L 1133 (1985)
 37. T.L. Ferrell and P.M. Echenique
"Generation of Surface Excitations on Dielectric Spheres by an External Electron Beam"
Phys. Rev. Lett. 55, 1526 (1985)
 38. P.M. Echenique and R.H. Ritchie
"Wake States of Fast Protons Moving in an Electron Gas"
Phys. Lett. A 111 A, 310 (1985)
 39. P.M. Echenique, F. Flores and F. Sols
"Lifetime of Image Surface States"
Phys. Rev. Lett. 55, 2348 (1985)
 40. P.M. Echenique, W. Brandt and R.H. Ritchie
"Self-Consistent Wake Binding Energies"
Phys. Rev. B 33, 43 (1986)
 41. P.M. Echenique, R.M. Nieminen, J.C. Ashley and R.H. Ritchie

- "Non Linear Stopping Power of an Electron Gas for Slow Ions"*
Phys. Rev. A 33, 897 (1986)
42. P.M. Echenique and J.B. Pendry
"Electron-Hole Pair Contributions to the Effective Mass of Electrons at Surfaces"
Surf. Sci. 166, 69 (1986)
43. J.C. Ashley, R.H. Ritchie, P.M. Echenique and R.N. Nieminen
"Non-Linear Calculations of the Energy loss of Slow Ions in an Electron Gas"
Nucl. Instrum. Meth. B15, 11 (1986)
44. J.B. Pendry, J.C. Larsson and P. M. Echenique
"On the Effective Mass of Electrons at Surfaces"
Surf. Sci. 166, 57 (1986)
45. J. Bausells and P.M. Echenique
"Velocity Dependence of Binding Energies and Life Times of Image States at Surfaces"
Phys. Rev. B 33, 1471 (1986)
46. N.Barberan and P.M. Echenique
"Effective Charge of Slow Ions in Solids"
J. Phys. B 19, L 81 (1986)
47. F.Flores, P.M. Echenique and R.H. Ritchie
"Energy Dissipation Processes in Scanning Tunneling Microscopy"
Phys. Rev. B 34, 2899 (1986)
48. P.M. Echenique and J.B. Pendry
"Plasmon Effects on Image States at Metal Surfaces"
J. Phys. C 19, 5437 (1986)
49. A. Gras-Marti, P.M. Echenique and R.H. Ritchie
"Surface Contribution to the Energy Loss of Slow Ions"
Surf. Sci. 173, 310 (1986)
50. J.C. Ashley, A. Gras-Marti and P.M. Echenique
"Non-Linear Energy-Loss Straggling of Slow Ions in Solids"
Phys. Rev. A 34, 2495 (1986)
51. M. Ortuño and P.M. Echenique
"Phase Shifts, Image Planes, and Surface States at Metal Surfaces"
Phys. Rev. B 34, 5199 (1986)
52. J. Bausells, P.M. Echenique and F. Flores
"Effective Masses and Lifetimes of Image States at Metal Surfaces"
Surf. Sci. 178, 268 (1986)
53. J.F. Annett and P.M. Echenique

- "The Van der Waals Interaction between an Atom and a Surface at Finite Separations"*
Phys. Rev. B 34, 6853 (1986)
54. E. Louis, F. Flores and P.M. Echenique
"Current Saturation Through Image Surface States in Scanning Tunneling Microscopy"
Solid State Comm. 59, 453, (1986)
55. P.M. Echenique
"Image States at Metal Surfaces"
Lecture notes as Keynote speaker at the *Adriatico Research Conference*. Pag.1-85 June 1986.
Trieste, Italy.
56. J. Bausells and P.M. Echenique
"Many Body Effects in the Binding Energy of Image States at Surfaces"
Surf. Sci. 182, 423 (1987)
57. P. de Andrés, F. Flores, P.M. Echenique and R.H. Ritchie
"A Barrier Potential Calculation for Tunneling Electrons at a Metal-Metal Interface"
Europhys. Lett. 3, 101 (1987)
58. P.M. Echenique, A. Gras-Martí D. Manson and R.H. Ritchie
"Image Potential for a Tunneling Electron"
Phys. Rev. B 35, 7357 (1987)
59. P.M. Echenique, A. Howie and D.J. Wheatley
"Excitation of Dielectric Spheres by External Electron Beams"
Phil. Mag. B 56, 335 (1987)
60. P.M. Echenique, J. Bausells and A. Rivacoba
"Energy Loss Probability in Electron Microscopy"
Phys. Rev. B 35, 1521 (1987)
61. J.C. Ashley and P.M. Echenique
"Influence of Damping in an Electron Gas on Vicinage Effects in Ion-Cluster Energy Loss"
Phys. Rev. B 35, 8701 (1987)
62. P.M. Echenique
"Phase Shifts and Bound States in One-Dimensional Problems"
American J. Phys., Vol. 55, N° 3, pg. 278 (1987)
63. P.M. Echenique and F. Flores
"Inelastic Proton-Solid Collision"
Phys. Rev. B 35, 8249 (1987)
64. A. Rivacoba and P.M. Echenique
"Electrons Trapped in the Wake of a Negative Muon"
Phys. Rev. B 36, 2277 (1987)

65. P. de Andrés, P.M. Echenique and F. Flores
"Lifetime in a Two-Dimensional Image-Potential Induced Electron Band"
Phys. Rev. B 35, 4529 (1987)
66. T.L. Ferrell, R.J. Warmack, V.E. Anderson and P.M. Echenique
"Analytical Calculation of Stopping Power for Isolated Small Spheres"
Phys. Rev. B 35, 7365 (1987)
67. P.M. Echenique
"Interaction of Slow Ions with Bulk and Surfaces"
Nucl. Instrum. Meth. B 27, 256 (1987)
68. A. Arnau and P.M. Echenique
"Self Energy of Image States"
Phys. Rev. B 35, 7697 (1987)
69. J. Bausells, A. Rivacoba and P.M. Echenique
"Energy Loss in Spheres by Penetrating Electrons"
Surf. Sci. 189/190, 1015 (1987)
70. J. F. Annett and P.M. Echenique
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10. P.M. Etxenike
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11. P.M. Etxenike, J.M. Pitarke eta F. Plazaola
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12. Ricardo Díez Muiño y Pedro Miguel Echenique
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"Interaction of Energetic Particles with Surfaces"
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2. Inkson and P.M. Echenique
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3. P.M. Echenique
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5. T. L. Ferrell, P. M. Echenique, V. E. Anderson and R. H. Ritchie
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26. P. Bauer, F. Kastner, A. Arnau, A. Salin, F.D. Fainstein, V.H. Ponce and P.M. Echenique
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40. M. Machado, W. Berthold, U. Hofer, E.V. Chulkov, V.M. Silkin, P.M. Echenique
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49. E.V. Chulkov, J. Kliewer, R. Berndt, V.M. Silkin, B. Hellsing, S. Crampin and P.M. Echenique
“*Hole dynamics in quantum-well states at thin films on metals*”
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2.4. MISCELLANEOUS PUBLICATIONS

1. P.M. Etxenike
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Eusko Ikaskuntza, 23-4-93
2. P.M. Etxenike
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Bilbo 1983 - Urria 24-29
3. P.M. Etxenike
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4. P.M. Etxenike
Omenaldia - Homenaje
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5. P.M. Etxenike
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6. P.M. Etxenike
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7. P.M. Etxenike
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8. P.M. Etxenike
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10. P.M. Echenique
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11. P.M. Etxenike
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12. P.M. Echenique
"Intercambio Académico"
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13. P.M. Etxenike
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14. P.M. Etxenike
"La sociedad del conocimiento"
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15. P.M. Etxenike
"Tecnologías e innovación."
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16. P.M. Etxenike
"Basic Science. The Future."
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17. P.M. Etxenike
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Fundación Fernando Buesa
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18. P.M. Etxenike, Maddalen Iriarte
“*Solasaldiak*” *Pedro Miguel Etxenike*
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19. P.M. Etxenike
“*La innovación al servicio del desarrollo en España*”
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20. P.M. Etxenike
“*Fisika Jostagarri*”. Hitzaurrea
Elhuyar Edizioak (2007)
21. P.M. Etxenike
“*Generosidad*”. *In what I believe*
Centro de Ciencias de Benasque Pedro Pascual (2009)

2.5. BOOKS AND EDITORIAL WORK

- Editor del libro: "*Interacción de Cargas y Radiación con la Materia*". 1988, UPV/EHU.
- Editor de "*Proceedings of the 12th Werner Brandt Workshop*", San Sebastian-September 1989.
- Editor del libro: "*Espectroscopías de Sólidos y Superficies*" 1991, UPV/EHU.
- Editor (con A. Beristain) de "*Honoris Causa Doktorearen Janzketa G.Kaiser, R.H.Ritchie*", UPV/EHU, 1992.
- Editor de "*CIC Network*", 2006.
- Editor de "*Progress in Surface Science*", 2007
- TH. Fauster, P.M. Echenique and E.V. Chulkov
"Electron dynamics at surfaces"
Textbook on Surface Science-Klaus Wandelt, Wiley- UCM (2007)
- Co-editor (with J. Inglesfield) of *Special issue to honour Sir John Pendry*
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2.6. SCIENTIFIC LECTURES IN PUBLIC FORUMS. (SUBSEQUENTLY PUBLISHED)

1. P.M. Etxenike
"*Investigación Básica e Innovación Tecnológica*"

July, 1986
Centenario Cámara de Comercio de Guipúzcoa
Published in: Economía Guipuzcoana

2. P.M. Etxenike
"Materia, Ciencia, Tecnología"
Los grandes avances del conocimiento
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3. P.M. Etxenike
"De lo Simple a lo Complejo en el Entendimiento de la Materia"
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4. P.M. Etxenike
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5. P.M. Echenique
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6. P. M. Etxenike
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7. P. M. Etxenike
"Ciencia. Tecnología. Innovación. Educación"
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Universidad de Deusto. Bilbao. (1995)
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9. P. M. Etxenike
"Algunos Aspectos de la Interacción de Electrones e Iones con Materia Condensada"
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10. P. M. Etxenike
"¿Qué Puede y Qué Tiene que Ofrecer la Universidad a la Empresa?"
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11. P. M. Etxenike
"Universidad: Problemas y Proyecto de Futuro"
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12. P.M. Etxenike
"Lo útil de conocer"
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13. P. M. Echenique
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 DYNA. Ingeniería e Industrial, April 2000, pg 21.
14. P.M. Echenique
"Discurso Honoris Causa"
 Universidad de Valladolid, December 2000.
15. P.M. Echenique
"Lo útil de conocer"
 Universidad de Salamanca, January 2001.
16. P.M. Etxenike
"Libertad y Límites de la Ciencia"
 Cuadernos para la Innovación Tecnológica-12
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17. P.M. Etxenike
"La sociedad del Conocimiento"
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18. P.M. Etxenike
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19. P.M. Etxenike
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21. P.M. Echenique
"Año Mundial de la Física."
 Discurso Congreso Diputados. Boletín del Colegio Oficial de Físicos, May 2005.

22. P.M. Echenique
“*La problemática del autogobierno vasco: Investigación. Una mirada al futuro*”.
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23. P.M. Echenique
“*Premios Nacionales de Investigación*”
Boletín SEBBM 147, marzo 2006.
24. P.M. Echenique
“*Discursos en la entrega de los Premios Nacionales de Investigación*”
Revista Española de Física (RSEF); 20, nº 3, pg 68, (2006)
25. P.M. Etxenike
Prólogo del libro: “*Un nuevo estilo de relaciones para el cambio organizacional pendiente*”
FT Prentia Hall-Financial Times
26. P.M. Etxenike
“*Ciencia. Creatividad. Futuro*”
El tiempo que nos llega. Once miradas desde España
Cátedra “La Caixa”. Economía y Sociedad
La Caixa (2008)
27. P.M. Echenique
“*Acto académico de investidura de D. Pedro Miguel Echenique Landiribar como Doctor Honoris Causa*”
Universidad Pública de Navarra
Pamplona, 13 de junio de 2008

3. DIRECTED DOCTORAL THESES

- Nuria Barberán: *"Efectos No Locales en Interacción de Cargas y Fotones en Superficie"* (1980)
Calificación: Sobresaliente cum laude
- Joan Bausells: *"Interacción Dinámica de Partículas Cargadas con Sólidos"* (1986)
Calificación: Apto cum laude
- Andres Arnau: *"Interacciones Dinámicas de Partículas Cargadas con la Materia (en Superficie y Volumen)"* (1989)
Calificación: Apto cum laude. Premio Extraordinario
- José María Pitarke: *"Tunel Espektroskopiaz eta Solidoetako Elektroi eta Fotoi-Emisioaz"* (1990)
Calificación: Gaitua cum laude. Premio Extraordinario
- Nerea Zabala: *"Energy Galerak Ekorketa eta Transmisioko Mikroskopia Elektronikoan"* (1991)
Calificación: Apto cum laude. Premio Extraordinario
- José Luis Mincholé: *"Desplazamientos Energéticos en Iones Hidrogenoides Moviéndose por el Interior de un Sólido"* (1991)
Calificación: Apto cum laude
- F. Javier García de Abajo: *"Surface Wake and Ion-Induced Electron Emission"* (1992)
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- Maite Alducin Ochoa: *"Procesos Intra-Atómicos y de Captura Auger Inducidos por Superficies Metálicas"* (1994)
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- Miriam Peñalba Otaduy: *"Pérdida de Energía de Iones Ligeros ($1 \text{ kev/uma} < E < 400 \text{ kev/uma}$) en Materia Condensada"* (1995)
Calificación: Apto cum laude. Premio Extraordinario
- Iñaki Juaristi Oliden: *"Pérdida de Energía y Emisión Electrónica en la Interacción de Iones con Superficies Metálicas"* (1996)
Calificación: Apto cum laude
- Ricardo Díez Muiño: *"Excitaciones Electrónicas en la Interacción de Cargas con la materia"* (1996)
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- Aitor Bergara Jauregi: *"Fenómenos No Lineales en la Interacción de Cargas con la Materia"* (1998)
Calificación: Apto cum laude.Premio Extraordinario
- Javier Aizpurua Iriazabal: *"Electroi eta Gainazaleko Modu Elektromagnetikoen arteko Akoploa Erorketa eta Transmisioko Mikroskopia Elektronikoan"* (1998)
Calificación: Sobresaliente cum laude
- Igor Campillo Santos: *"Respuesta Dinámica de Electrones en Sólidos: Efectos no Lineales y de Estructura de Bandas"* (1999)
Calificación: Sobresaliente cum laude. Premio Extraordinario
- M. A. Cazalilla Gutierrez: *"Excitaciones Plasmónicas en la Plata y Neutralización de Iones de He⁺ en la Superficie de un Metal"* (1999)
Calificación: Sobresaliente cum laude
- Jacinto Osma Peso: *"Dinámica Ultrarrápida de Estados de Superficie y Difracción del Satélite de Plasmón"* (1999)
Calificación: Sobresaliente cum laude
- Enrique Zarate Larrinaga: *"Efectos Dinámicos en la Interacción de Cargas con la Materia: Pérdidas de Energía en Aislantes y Vidas medias de Electrones Lentos"* (1999)
Calificación: Sobresaliente cum laude
- Imanol Sarría Subín de Celis: *"Dinámica de Estados Imagen y Efectos Cuánticos de Tamaño en Superficies Metálicas"* (2000)
Calificación: Sobresaliente cum laude
- Jorge Sanchez Dolado: *"Respuesta Dinámica y Vidas Medias de Electrones en Sólidos"* (2001)
Calificación: Sobresaliente cum laude
- Arantzazu García Lekue: *"Many-body interactions on metal surfaces: energy loss, surace-state lifetimes, and many-electron wave function"* (2003)
Calificación: Sobresaliente cum laude
- Maidier Machado: *"Estructura electrónica y dinámica de cuasipartículas en sistemas de baja dimensionalidad"*(2003)
Calificación: Sobresaliente cum laude
- Asier Eiguren: *"Electron-phonon interaction"* (2003)
Calificación: Sobresaliente cum laude
- Idoia García de Gurtubay: *"Electronic excitations in solids; dynamical structure factor and quasiparticles lifetimes"* (2004)
Calificación: Sobresaliente cum laude. Premio Extraordinario
- Ane Sarasola: *"Erantzun dinamikoa eta kitzikapen elektronikoak"* (2005)

Calificación: Sobresaliente cum laude.

Maia garcía Vergniory *“Many body and band-estructure effects on the interaction of electrons and ions with solid surfaces”* (2007)
Calificación: Sobresaliente cum laude

Aitzol García-Etxarri *“Modeling of plasmonic nanoantennas for optical microscopy and surface enhanced spectroscopy”* (2010)
Calificación: Sobresaliente cum laude

Directed Masters’ Theses

A. Mazarro: *“El Potencial de Estela en la Aproximación de Lindhard”*
Calificación: Sobresaliente

R. Núñez: *“Pérdida de Energía de Iones Lentos en las Proximidades de Superficie”*
Calificación: Sobresaliente

Miguel Pairo: *“Interacciones entre Atoms Neutres i Superficies Metaliques”*

Aitor Bergara Jauregui *“Potencial de estela no lineal”*

Igor Campillo Santos *“Excitación coherente de plasmones dobles en sólidos”*

Research Director of Fifth Year Students: Joan Bausells, Antonio Isalgue y Fernando Sols:
“Interacción de Agregados Moleculares en Plasmas de Electrones”.
Financed by a grant from the Ministry of Universities and Research.

4. LECTURES, SEMINARS, AND PARTICIPATION IN SCIENTIFIC CONVENTIONS

4.1. DIRECTED COURSES AND INTERNATIONAL SCIENTIFIC CONVENTIONS

- Director of the Summer Course UPV/EHU "Electrones en Sólidos. Interacción de Cargas y Radiación con la Materia". San Sebastián (Euskadi) 6-10 July 1987
- Member of the Coordinating Committee of the European Network in Surface Crystallography (S. Anderson, R. Baudoing, P.M. Echenique, G. Ertl, M. Ibach, DA.King, K. Müller, J.B. Pendry, G. Rovida, I. Stensgaard, DJF Van der Veen)
- Director of the Summer Course (and the annual course of GEFES): "Espectroscopías de Sólidos y Superficies". San Sebastián (Euskadi) - 29 de August - 2 September 1988
- Chairman of "The 12th Werner Brandt Workshop on Penetration Phenomena of Charged Particles in Matter". San Sebastian 4-7 September 1989
- Comité Asesor Internacional del Sexto Simposio Latino-Americano de Física de Superficies. Cuzco - Perú 3-7 September 1990
- International Advisory Committee of the International Werner-Brandt Conferences on the Interaction of Charged Particles with Matter
- Comité Asesor Internacional del VII-Simposio Latino Americano de Física de Superficies. Argentina 1992
- International Advisory Committee of the Third International Conference on Electrical Transport and Optical Properties of Inhomogeneous Media (ETOPMIN 3) Guanajuato, Mexico 9-13 August 1993
- Chairman of Euroconference "Particle-Solid Interaction: Electronic Excitations in Bulk and Surfaces". San Sebastian, Euskadi 1-6 October 1994

- Organizing Committee, "International Symposium Interaction of Charged Particles and Radiation with Matter". Oak Ridge, TN, E.E.U.U., 23-26 October 1994
- Director of EuroConferences Series: Donostia Encounters on Particle Solid Interaction. San Sebastián, Euskadi, 23-28 September 1997
- International Scientific Committee of the International Ontology Congress. San Sebastián, Spain, 1-5 October 1998
- International Scientific Committee of the Werner Brandt International Conference. Bariloche, Argentina, 11-18 April 1999
- International Scientific Committee of the "VI Reunión Nacional de Materiales". San Sebastián, Spain, 22-24 June 1999
- Director, "European Research Conferences, Particle-Solid Interaction". Donostia/San Sebastián, Spain, 28 September-3 October, 1999.
- Chairman, "International Workshop on Image States and Electron Lifetimes in Solids". San Sebastián, Spain, 25-27 June, 2000.
- "Lifetimes of Surface States in Metals", 20th International Seminar on Surface Physics. KudowaZdrój (Polonia), 19- 24 June 2000
- With D. J. Antonio Ortega y Díaz Ambrona co-director of the Summer Course: "El legado del siglo XX: materia, vida y sociedad". 28 August, 2000.
- Consejo Asesor del Congreso Internacional "La Ciencia y la Tecnología ante el Tercer Milenio. Sociedad Estatal España Nuevo Milenio. Madrid (Spain) 14-17 November 2000.
- Comité Científico- Técnico, "La Sociedad de la Información en el País Vasco". Bilbao, 24-27 de April 2001.
- Chairman, "Curso de Verano UPV/EHU". International Workshop of "Ultrafast Surface Dynamics", Donostia – San Sebastián (Spain), 7 – 11 de July de 2001. Also, the summer course of the UPV/EHU.
- International Advisory Board, " European Conference on Surface Science" ECOSS20. Krakow (Poland). 4-7 September 2001.
- Director of the Summer Course UPV/EHU". "European Research Conference on the deposition of atoms, Ions and Cluster at Surfaces". Donostia- San Sebastián (Spain), 11 – 16 September, 2001.
- International Scientific Committee, "22nd Werner Brandt Workshop, FUNDP". Namur (Belgium), 27-29 June 2002

- Co-Director of the Summer Course UPV/EHU: “Towards atomic scale -and time- resolution at interfaces”, Donostia-San Sebastián (Spain) 1-4 July, 2002.
- Member of the Scientific Committee of the TNT Conference, La Coruña (Spain). 11-13 September, 2002.
- Member of the Scientific Committee of the VII Congreso Nacional de Materiales, Madrid (Spain) October de 2002.
- Presidente Comité Científico del Simposio Euskadi en la Sociedad del Conocimiento. Bilbao, 12-14 June 2003.
- Co-Director Summer Course UPV/EHU, DIPC-International Workshop on Optical properties of complex materials over different length scales. Donostia-San Sebastián, Spain. 7-11 July, 2003.
- Co-Director of the Summer Course UPV/EHU, V Donostia Encounter on Particle Solid Interactions. “Modifications following different interaction processes at surfaces”. Donostia-San Sebastian, 8-13 September, 2003
- Organising committee of 1st Nanospain Workshop, Donostia-San Sebastián, 9-12 March, 2004
- Co-Director of the Summer Course UPV/EHU, “Molecule-surface interactions: elementary reactive processes”, Donostia / San Sebastián, September 7 – 11, 2004.
- Co-Chairman of the “Albert Einstein Annus Mirabilis 2005”, Donostia-San Sebastián, September 5-8, 2005.
- International Advisory Board, ECOSS 23, European Conference on Surface Science, Berlin, September 4-9, 2005.
- Organising Committee, 2nd Nanospain Workshop, Barcelona, March 14-17, 2005
- Organising Committee, Curso Verano UPV/EHU, Summer School on metamaterials for microwaves and optical technologies, Donostia-San Sebastián, July 18-20 (2005).
- Organising Committee, TNT2005, Oviedo, Spain, August 29-September 2, 2005.
- Organising Committee, International Workshop, “Recent advances on the dynamics of atomic and molecular particles interacting with gas and solid targets”. Donostia-San Sebastián, Spain, October 24-26, 2005.
- Chairman of the “Dynamics of electron transfer processes at surfaces” symposium at the Condensed Matter joint meeting or the Deutsche Physikalische Gesellschaft and the European Physical Society, Dresden, Germany, 27-31 March, 2006.

- International Steering Committee. 5th Symposium on Ultrafast Surface Dynamics”, 21-25 May 2006. Hokkaido (Japan)
- Organising Committee, TNT 2006, Grenoble, France, 4-8 September 2006.
- Organising Committee “Nano2006”. Cursos de Verano de la UPV/EHU, Donostia-San Sebastián, 4-6th September 2006.
- International Advisory Committee, 20th Symposium on Surface Science 3S07, Les Arcs, France, March 11-17, 2007.
- Scientific Committee of the International Conference Elementary Reactive processes at surfaces, ERPS 2007, Donostia-San Sebastián, Spain, August 30-September 1, 2007.
- Organising Committee, TNT 2007, Trends in Nanotechnology, Donostia-San Sebastián, Spain, 3-7 September, 2007.
- 6th International Symposium on Atomic Level Characterizations for New Materials and devices 07, ALG’07, Kanazawa, Ithikawa, Japan, October 28- November 2, 2007
- Steering Committee, USD 6 Ultrafast Surface Dynamics 6, Kloster Banz, Germany, 20-25 July, 2008.
- Co-chairman of the Symposium Electronic Structure and Quantum Effects of Two-dimensional Systems. ECOSS 25, Liverpool, England, July 27- August 1, 2008.
- Co-chairman of the International Workshop UltraFast 2008, “Electron dynamics and electron mediated phenomena at surfaces: femto-chemistry and atto-physics”. San Sebastián, Spain, May 7-9, 2008.
- Co-chairman (with Jesús Ugalde) of the International Workshop (Curso de Verano de la UPV/EHU), “The role of scientific academies in modern societies”, Donostia-San Sebastián, Spain, August 29, 2008.
- Chairman of the Symposium: “New Frontier of Magnetism”. Donostia-San Sebastián, Spain, September 22, 2008.
- Organising Committee of the “28th Brandt Ritchie Workshop: Particulate penetration Phenomena and Excitation of Solids”. Madrid, Spain, May 24-27, 2009.
- Organising Committee, “Trends in Nanotechnology Conference International Conference TNT 2009, Barcelona, Spain, September 7-11, 2009

- International Committee, “Attosecond Physics” Atto-09, Kansas State University, Manhattan, Kansas, July 28-August 1, 2009
- International Advisory Board, “European Conference on Surface Science” ECCOSS 2009, Parma, Italy, August 30- September 4, 2009
- Co-Director del Curso de Verano UPV/EHU: Workshop on “Bio-Inspired Photonic Structures”. Photonic Science and Engineering in the living and artificial worlds, Donostia, San Sebastian, Basque Country, Spain, July 9-15, 2009
- Co-director of the “Workshop on Inorganic Nanotubes. Experiment and Theory”, DIPC, San Sebastian, September 4-7, 2009
- Co-chairman of the Workshop “Nano2009: Perspectives in nanoscience and nanotechnology”, Donostia- San Sebastián, Spain, September 28-30, 2009
- Co-chairman of the Conference “Atom by Atom”, Donostia-San Sebastián, Spain, September 28-30, 2009
- Organizing Committee, Curso de Verano “Computational Materials Science”, Donostia-San Sebastián, Spain, June 28- July 3, 2010
- International Steering Committee, “Ultrafast Surface Dynamics” USD 2010, Croacia, August 22-26, 2010
- Organizing Committee, “Passion for Knowledge”, Donostia-San Sebastián, September 27- October 1, 2010
- Chairman of the “Symposium on Surface Science 2011 (3S’11)”, Baqueira Beret, LLeida, Spain, March 6-12, 2011
- Honorary Committee, “Passion for light”, Joint EPS-SIF International workshop, Varenna, Lake Como Italy, September 16, 2011
- Advisory Board, “International Conference on Solid Films and Surfaces (icsfs16), Genoa, Italy, July 1-6, 2012

4.2. FEATURED LECTURES IN INTERNATIONAL SCIENTIFIC CONVENTIONS (SINCE 1984)

1. *"Dynamic screening and charge states of ions in solids"*
Conference on the Use of Accelerators in Industry
Denton, Texas, U.S.A. November, 1984
2. *"Capture and loss into bound and wake states of ions moving in an electron gas"*
"U.S.A.-Japan Seminar on Physics with fast molecular Ion Beams"
Honolulu, Hawaii, 14 - 21 December, 1985
3. *"Image States at Metal Surfaces"* ("Keynote speaker")
Adriatico Research Conference: "Dynamical Screening and Spectroscopy of Surfaces"
Trieste, Italy. 24 - 27 June. 1986
4. *"Interaction of Slow Ions with Bulk and Surfaces"*
"International Workshop on the interaction of slow ions with matter"
Linz, Austria. 18 – 21 September, 1986
5. Chairman of the session, "Electrons at Surfaces," and invited speaker
10th Werner Brandt Workshop
Alicante, Spain (1987)
6. Invited Lecturer
NATO Advanced Research Workshop on "RHEED and Reflection Electron Imaging of Surfaces"
Veldhoven, The Netherlands, June 15-19, 1987
7. Invited Lecturer
"12th International Conference on Atomic Collisions in Solids"
Okayama Science University, Okayama, Japan (October 12 - 16, 1987).
8. Invited Lecturer
"International Symposium on Dynamic Interactions of Charged Particles with Solids"
Riken Wako-Shi Saitama, Japan. October 8-9, 1987
9. Invited Lecturer: *"Interaction of Electrons with Surfaces"*
General Meeting of the APS (American Physical Society)
New Orleans, Louisiana, USA, 21-25 March, 1988

10. Invited speaker: *Problems on "Scanning Transmission Electron Microscopy STEM"*
11th International Werner Brandt workshop on particle penetration in solids
Oak Ridge, TN, USA, 14-15th April, 1988
11. Invited speaker: *"Wake Riding Electrons in Protons and Antiprotons"*
International Symposium on Dynamic Particles-Condensed Matter Interactions
Hakone, Kanagawa-Japan. 4-5 December, 1988
12. Invited speaker: *"Interaction of Slow Ions with Matter"*
Sanibel Symposia 1989
Sanibel, Florida, USA, 1-8 April, 1989
13. *"Image Potential and Image States at Surfaces"*
3S-90 Symposium on Surface Science
La Plagne, France, 11-17 March, 1990
14. *"Density Functional Theory of Stopping"*
NATO-ASI on Interaction of Charged Particles with Solids and Surfaces.
Alicante, Spain 6-20 May, 1990
15. *"Image Potential States"*
14th International Seminar on Surface Physics
Wroclaw, Poland, May 21-26, 1990
16. *"Interaction of STEM Electrons with Surfaces"*
Cuzco Sixth Latin American Symposium on Surface Physics
Cuzco, Perú. 3-7 September, 1990
17. *"Image Potential Effects for Slow and High Energy Electrons"*
11th European Conference on Surface Science
Salamanca, Spain, October 1-4, 1990
18. *"Stopping Power of Slow Ions in Matter"*
Eleventh International Conference on the Application of Accelerators in Research and Industry
Denton, Texas, U.S.A. 5-8 November, 1990
19. *"The Image Potential in Scanning Transmission Electron Microscopy and Scanning Tunneling Microscopy"*
The 13th W. Brandt Conference on Charged Particle Penetration Phenomena
NARA, Japan. 13-16 November, 1990
20. *"Phase Effect in Stopping Power"*
The 14th W. Brandt Conference
Oak Ridge, TN, USA, 30 April - 1 May, 1992
21. *"International workshop on Energy Transfer in interactions with surfaces and adsorbates"*
Trieste, Italy 31 August-11 September, 1992

22. *"Image States: Idea and Theoretical Development"*
16th International Seminar on Surface Physics
Kudowa (Poland) 5- 10 October, 1992
23. Bariloche (Argentina) – November, 1992
24. *"Energy Loss of Moving Ions in Condensed Matter"*
European Conference
Regensburg, Germany 1993
25. *"Valence Loss Spectra in STEM"*
VIth Symposium on Surface Physics
Chlum, Czech Republic, 24-28 May, 1993
26. *"Charge States and Energy Loss of Ions in Solids"*
Conference on Electronic Energy Loss of Ions in Matter
Gmunden, Austria. 12-16 July (1993)
27. *"Interaction of Ions and Electrons with Bulk and Surfaces"*
14th General Conference on Condensed Matter. European Physical Society
Madrid, Spain. March 28-31 (1994)
28. *"Dynamic Screening and Energy Loss of Ions in Solids"*
2nd International Conference on Computer simulation of Radiation Effects in Solids, COSIRES
94
Santa Barbara, California, July 25-29 (1994)
29. *"Valence Electron Energy Loss in Scanning Transmission Electron Microscopy"*
European Research Conference. Electronic Structure of Solids
Gansdal, Norway 27 August-1 September (1994)
30. *"Dynamic Screening of Ions in Solids"*
International Symposium
Oak Ridge, TN (USA). 22-24 October (1994)
31. *"Low Energy Losses in STEM"*
Condensed Matter and Materials Physics Conference
Warwick (UK), 19-21 December 1994
32. *"Screening of Charges at Bulk and Surfaces in Theoretical Overview"*
HCI Meeting
Kitzbühl (Austria), 27-30 January 1995
33. *"Valence Loss of STEM Electrons"* (Plenary Talk)
Symposium on Surface Science 3S'95
Salzburg (Austria), April 23-29 (1995).
34. *"Electronic Stopping of Slow Ions in Solids"* (Plenary Talk)

9th International Conference on Surface Modification of Metals by Ion Beams
Donostia - San Sebastián, Spain- September 4-8 (1995)

35. *"Non Linear Auger Rates of Highly Charged Ions in Metals"*
Werner Brandt International Conference
Oak Ridge, TN (USA), 8-9 January 1996
36. *"Surface Image Electronic States"*
Workshop on Electronic Structure: Prediction and Applications
Donostia - San Sebastián, Spain, 26-27 January 1996.
37. *"L-Auger Filling Rates of Highly Charged Ions in Metals"*
Workshop on "Ions Surface Interaction"
Les Houches, France, 12-16 March 1996
38. *"Energy Loss of Slow Ions in Solids"*
International meeting on Topics in Theoretical solid-state physics
Namur, Belgium, 14-18 January 1997
39. *"Life Time of Electrons above the Fermi Level"*
International Conference in Femtosecond Chemistry
Ascona , Switzerland, 2-5 March 1997
40. *"Surface Electrons"*
Symposium on Surface Science
Osnabrück (Germany). March 7, 1997
41. *"Pérdidas de Energía en el Microscopio Electrónico de Barrido" (Charla Plenaria)*
Sociedad de Microscopía Española
Toledo, Spain, 15-18 April 1997
42. *"Image States: Concept and Development"*
Symposium on dynamics of image potential states on metal surfaces
Garching. München, Germany, 20-21 October 1997
43. *"Lifetimes of Excited States at Surfaces" (Plenary talk)*
International Symposium on Surface Science 3S-98
Park City. Utah (USA), March 29- April 4, 1998
44. *"Lifetimes of Image States at Metal Surfaces"*
Workshop on Computational Chemistry
Miraflores de la Sierra , Madrid, Spain. June 18-20, 1998.
45. *"Apantallamiento Dinámico de Iones en Sólidos" (Charla Plenaria)*
Congreso de la AFA
La Plata (Argentina), 21-25 Sept. 1998
46. *"Lifetimes of Electrons Near the Fermi Surface"*

Ringberg Symposium on Ultrafast Surface Dynamics.
Rottach-Egern (Germany). March 28-April 1, 1999

47. *"Lifetime of electrons near the Fermi Level"*
The 19th Werner Brandt Conference
Bariloche (Argentina). April 13-16, 1999
48. *"Dinámica de Electrones en Superficies Metálicas"*
XXVII Reunión Bienal de la RSEF
Valencia (Spain), September 20-24, 1999
49. *"Inelastic lifetimes of surface states in metals"*
12th Symposium on Surface Science
Alberta, Canadá, March 14-19, 2000
50. *"Inelastic lifetimes of surface states in metals". After dinner speech.*
SSS Conference
Alberta, Canadá, March 14-19 2000
51. *"Self-energy and inelastic lifetimes of surface states in metals"*
German Physical Society
Regensburg, Germany, 30 March 2000
52. *"Lifetimes of Electrons Near the Fermi Level"*
International Conference on Electron Dynamics at Surfaces Trieste. Italy.
11- 14 June 2000
53. *"Lifetimes of surface states in metals "*
20th International Seminar on Surface Physics
KudowaZdrój (Poland), June 19-24 (2000)
54. *"Lifetimes of image states at surfaces"*
ICACS – 19.
Paris (France), 29 July – 3 August (2001)
55. *"Nonlinear screening in two dimensional electron gases"*
21st Werner Brandt workshop on penetration phenomena
(Atoms and Molecules at surfaces)
Donostia – San Sebastián (Spain), 17 – 18 September (2001)
56. *"Electron Dynamics in 2D and 3D metals"*
Workshop on Dynamik von Elektronentransferprozessen an Greensflächen"
Bonn, Alemania. 7-8 February 2001
57. *"Lifetimes of surface and image state"*
Trends in Nanotechnology TNT 2001
Segovia, Spain, September 3, (2001)

58. *“Electron dynamics in 2 and 3 dimensional metals”*
OSA Annual meeting 2001 and 17th Interdisciplinary Laser Science Conference
Long Beach, California, USA, October 14-18 (2001)
59. *“La Sociedad del Conocimiento”*
Congreso Internacional de Estudios Vascos. Eusko Ikaskuntza.
San Sebastián, Spain, 28-30 November (2001)
60. *“Lifetimes of electrons and holes at surfaces”*
International workshop. Total Energy Methods in Computational Condensed Matter
La Laguna, Tenerife, Spain. January 10-12 (2002)
61. *“Electron dynamics of bulk and surface states”*
International Research Conference on Surface Photoprocesses
Les Houches, France. January 14-18 (2002)
62. *“Lifetimes of electrons and holes at surfaces”*
International Symposium on New Trends on femtosecond laser spectroscopy in Chemistry
Physics and Neurobiology.
Madrid, Spain. 12-13 February (2002)
63. *“Lifetime of electrons and holes at surfaces”*
Werner Brandt Workshop
Namur, Belgium. 27-29 June (2002)
64. *“Electrón Dynamics at surfaces”*
TNT Conference.
Santiago de Compostela, Spain. 11-13 September (2002)
65. *“Low energy collective electronic excitations at metal surfaces”*
Symposium on Surface Science 2003.
La Plagne, France, 30 March-5 April (2003)
66. *“Theory of surface Science”*
The future of surface science, Garching, Munich, Germany 28 April (2003)
67. *“Screening and dimensionality on electron dynamics at bulk and surfaces”*
23rd W. Brandt Workshop- Electronic Excitations of Solids.
Playa del Carmen, Quintana Roo, Mexico, June 4-6, (2003)
68. *“Low-energy collective electronic excitations at metal surfaces”*
39th IUVSTA
Telluride, Colorado, USA. 23-27 June (2003)
69. *“Acoustic plasmons at metal surfaces”*

V Donostia Encounter on Particle Solid Interactions
Donostia-San Sebastian, Spain, 8-13 September (2003)

70. “*Low energy collective electronic excitations at metal surfaces. Surface Plasmons Photonics*”
Euroconference on Nano-optics.
Granada, Spain, 20-25 September (2003)
71. “*Hole and electron dynamics at surfaces*”
International Symposium. Low-dimensional materials. Present and future perspectives.
Madrid, 29-30 April (2004)
72. “*Screening and quasiparticles dynamics at solid and surface*”
Workshop Kieler Woche.
Kiel, Germany 22-26 June (2004)
73. “*Electronic excitations in solids*”
COSIRES Conference
Helsinki, Finland 26 June-1 July (2004)
74. “*Many body theory of electronic lifetimes at surfaces*”
European Graduate College Electron-Electron Interactions in Solids. Philipps Universität
Marburg
Marburg, Germany, 1-3 July 2004.
75. “*Electron and hole dynamics at bulk and surfaces*”
Presented by J. Gervasoni
ESS’04 IUVSTA Workshop on electron scattering in solids
Debrecen, Hungary, 4-8 July (2004)
76. “*Attosecond screening*”
Werner Brandt Workshop
Berlin, Germany 11-14 July (2004)
77. “*Lifetime of electrons and holes at surfaces*”.
Encuentro de Física Fundamental. Homenaje a A. Galindo.
Madrid, Spain, 26 November (2004).
78. “*Electron dynamics at surfaces*”
Physik seit Einstein Workshop.
German Physical Society Meeting
Berlin, Germany, 3-5 March (2005)
79. “*Dinámica de electrones en superficies*”
Disertaciones sobre Física Contemporánea
Año Mundial de la Física.

Universidad Autónoma de México., México, April (2005)

80. “*Electron dynamics at surfaces*”
Werner Brandt Workshop.
Gainesville, Florida, USA. 9-15 April (2005)
81. “*Theory of electron dynamics at surfaces*”
Workshop on ultrafast time resolved soft x-ray science.
Zeuthen, Germany. 27-29 April (2005)
82. “*Electron dynamics at surfaces*”
TNT Workshop.
Oviedo, Spain, 2-3 September (2005)
83. “*Electron dynamics at surfaces*”
Bienal de la RSEF. Plenary speech.
Ourense, Galicia. 12 September (2005)
84. “*Electron dynamics at surfaces*”
IV Rencontre Franco-Espagnole sur la Chimie et la Physique de L’Etat Solid.
Bilbao, Spain, 4-8 April (2006)
85. “*Dynamic screening and energy loss of ions and electrons in an electron gas*”
ICACS 2006, 22nd International Conference on Atomic Collisions in Solids
Berlin, 21st to 26th July (2006)
86. “*Dynamic screening and energy loss of ions and electrons in an electron gas*”
ICACS 2006, 22nd International Conference on Atomic Collisions in Solids
Berlin, 21st to 26th July (2006)
87. “*Dynamical screening and electron-electron scattering in low-dimensional metallic systems*”
ECOSS 24
Paris, 4-8th September (2006)
88. “*Dynamic screening and electron dynamics at surfaces*”
IISC 16, International Workshop on Inelastic Ion-Surface Collisions.
Austria, 17-22 September (2006)
89. “*Electron and hole dynamics in bulk metals and at surfaces*”
15th International Conference on Vacuum Ultraviolet Radiation Physics
Berlin, 29th July- 3rd August (2007)
90. “*A novel low energy electronic collective excitation at metal surfaces*”
Trends in Nanotechnology (TNT 2007)
San Sebastian, 3-7th September (2007)

91. *“Lo útil de conocer. El gran reto de lo pequeño”*
 X Congreso Nacional de Materiales
 Universidad de Mondragón
 Kursaal, Donostia-San Sebastián
 San Sebastián, June 18, 2008

92. *“Electron Dynamics at Surface”*
 Prof. Sir John B. Pendry Fest
 London, September 29, 2008

93. *“Electron Dynamis at Surfaces”*
 Prof. R.M. Nieminen Fest
 Helsinki, October 3, 2008

94. *“Electron dynamics at surfaces”*
 P.M. Echenique, E.V. Chulkov, A. Kazansky, D. Sanchez-Portal and V.M. Silkin
 The Brandt Ritchie Symposium
 Madrid, May 25-27, 2009

95. *“Acoustic surface plasmon on a metal surface with adlayers”*
 P.M. Echenique
 TNT 2009. Trends in Nanotechnology, Barcelona, Spain, September 7-11, 2009

96. *“Acoustic surface plasmon at surfaces and nanostructures”*
 P.M. Echenique
 International Conference on Nanostructures at surfaces, Ascona, Switzerland, September 20-25, 2009

97. *“A new collective electronic excitation at surfaces”*
 P.M. Echenique
 Symposium in honor of Prof. Dr. Dietrich Menzel’s 75th birthday, Max Planck Institute for
 Plasmaphysics (IPP), Campus Garching, Germany, April 20, 2010

98. *“Condensed matter effects in attosecond physics”*
 P.M. Echenique
 75th Annual Meeting of the DPG, Dresden, Germany, March 13-18, 2011

99. *“Electron Dynamics at Surfaces and Nanostructures”*
 P.M. Echenique
 International workshop on “Elementary Processes in Solids and at Interfaces: Carrier, Lattices
 and Molecular Dynamics, Kloster Banz, Bad Staffelstein, Germany, May29-June 1, 2011

100. *“Electron dynamics at Surfaces and Nanostructures”*
 P.M. Echenique
 11th Iberian Joint Meeting on Atomic and Molecular Physics (IBER2011), Coimbra, Portugal,
 June 20-22, 2011

101. *“Electron dynamics at Surfaces and Nanostructures”*
P.M. Echenique
PCAM Summer School 2011: Electronic and Optical Properties of Nanoscale Materials, July 4-7, Donostia - San Sebastian
102. *“Electron dynamics at surfaces and nanostructures”*
P.M. Echenique
100th anniversary of Kaiser Wilhelm Institute for Physical Chemistry and Electrochemistry, Fritz Haber Institute of the Max Planck Society, Berlin, October 26-28, 2011
103. *“Electron dynamics at surfaces and nanostructures”*
P.M. Echenique
“Advances in atomic collisions and particle-surface interactions”, Workshop in honor of Victor Hugo Ponce, Centro Atómico Bariloche, Argentina, November 7-8, 2011
104. *“Electron dynamics at surfaces and nanostructures”*
P.M. Echenique
Colloquium Munich, January 8-10, 2012
105. *“Electron dynamics at surfaces and nanostructures”*
P.M. Echenique
“A passion for science”, Colloquium in honour of the members of the Royal Belgian Academy for Sciences, Letters and Arts, January 19-22, 2012
106. *“Electron dynamics at surfaces and nanostructures”*
P.M. Echenique
Conferencia Plenaria, NanoSpain 2012, Santander, February 28, 2012

4.3. COMMUNIQUEÉS

DELIVERED AT CONFERENCES

1. F. Soria, J.L. Sacedon, P.M. Echenique and D. Titterington
"LEED and AES study of the Epitaxial Growth of the Thin Film Au (111) / Au (111) Mica System"
International Conference on Surfaces Physics in York, England, 27 - 30 March, 1977
2. J.B. Pendry y P.M. Echenique
"Theory of Scattering of 4He Atoms by Liquid 4He Surface"
March Meeting of the American Physical Society, 21 - 24 March, 1977
3. T.L. Ferrell, P.M. Echenique, V.E. Anderson and R.H. Ritchie
"The Force on an Ion Moving Near a Surface"
Fall Meeting of the American Physical Society, 1977
4. T.L. Ferrell, P.M. Echenique, V.E. Anderson and R.H. Ritchie
"The Force on an Ion Moving Near a Surface"
First European Conference on Surface Physics, Amsterdam, The Netherlands, June 5 - 9, 1978
5. J. Tejada, P.M. Echenique, R.H. Ritchie
"Dynamic Screening of Swift Ions in Solids"
75 Aniversario de la Bienal de la R.S.E.F.Q. Madrid, 2 - 7 October, 1978
6. N. Barberán y P.M. Echenique.
"Estados Superficiales Inducidos por el Potencial Imagen"
75 Aniversario de la Bienal de la R.S.E.F.Q. Madrid, 2 - 7 October, 1978
7. R.H. Ritchie, P.M. Echenique, W. Brandt and G. Basbas
"Plasmons, Wakes and Clusters"
Paper for the Fifth Conference on the uses of small accelerators in research, teaching and industrial applications, Denton, Texas, 6 - 8 November, 1978
8. J. Tejada, P.M. Echenique, O.H. Crawford and R.H. Ritchie.
"Wake Shifts in Electron States on Swift Ions Passing through Solids"
8th International Conference on Atomic Collisions in Solids, Hamilton, Canada, August, 13-17, 1979
9. P.M. Echenique.
"Wake Theory"

Workshop on Physics with Fast Molecular Ion Beams. Argonne National Laboratory. Chicago (U.S.A.), August 20 - 21, 1979

10. R.H. Ritchie and P.M. Echenique.
"Quantum Theory of the Charged Particle Wake"
Bat - Sheva (Israel), January, 1981
11. A. Mazarro, P. M. Echenique and R.H. Ritchie.
"The Wake of Charged Particles in the Random Phase Approximation"
9th International Conferences on Atomic Collisions in Solids. Lyon, France, 6-10 July, 1981
12. A. del Moral, P.M. Echenique y J.A. Corrales.
"Apantallamiento de Parámetros Magnetoelásticos en Intermetálicos de Tierras Raras"
Bienal Española de Física, 1981
13. P.M. Echenique, R.M. Nieminen and R.H. Ritchie.
"A Density Functional Calculation of the Stopping Power of an Electron Gas for Slow Ions"
9th International Conference on Atomic Collisions in Solids. Lyon (France), 6-10 July, 1981
14. R.H. Ritchie, P.M. Echenique.
"Dynamic Screening and Charge States of Ions in Solids"
Eight Conference on the Application of Accelerators in Research and Industry. November 12 – 4, 1984, State University at Denton, Texas. U.S.A.
15. J.L. Ashley, R.H. Ritchie, P.M. Echenique and R.M. Nieminen.
"Non Linear Stopping Power of an Electron Gas for slow Ions"
7th International Conference on Ion-Beam Analysis. Berlin (Germany)
16. P.M. Echenique.
"Capture and Loss into Bound and Wake States of Ions Moving in an Electron Gas"
U.S.A. - Japan Seminar on Physics with fast molecular Ion-Beams. 14 - 21 December, 1985. Honolulu, Hawaii. U.S.A.
17. J. Bausells, P.M. Echenique and F. Flores.
"Effective Masses and Lifetimes of Image States at Metal Surfaces"
ECOSS 86, April, 1986. Jülich (Germany).
18. F.Flores, P.M. Echenique and R.H. Ritchie.
"Energy Dissipation in the Scanning Tunneling Microscopy of Metals and Insulators"
International Seminar on Electric Insulation, June 9 - 11, Washington D.C., U.S.A.
19. A. Gras-Martí, P.M. Echenique and R.H. Ritchie.
"Tunneling from a Self Energy Approach"
International Seminar on Electric Insulation, June 9 - 11, 1986. Washington, D.C., U.S.A.
20. J. Annette and P.M. Echenique
"The van der Waals Interaction at Finite Distances"

Adriatico Research Conference on Dynamical Screening and Spectroscopy of Surfaces , June 24 -27, 1986. Trieste. Italy

21. P.M. Echenique
"Image States at Metal Surfaces"
Adriatico Research Conference. June 24 - 27, 1986. Trieste, Italy
22. P. de Andrés, F. Flores, P.M. Echenique and R.H. Ritchie
"A Barrier Potential Calculation for Tunneling Electrons at a Metal Interface"
Adriatico Research Conference, June 24 - 27, 1986. Trieste, Italy
23. P. de Andrés, F. Flores, P.M. Echenique
"Scanning Transmission Microscopy Image potential"
First International Conference on STM. Santiago de Compostela. Spain, July, 1986
24. P.M. Echenique
"Interaction of Slow Ions with Bulk and Surfaces"
International Workshop on the interaction of slow ions with matter. Linz, Austria. September, 1986
25. J. Bausells, N. Barberán and P.M. Echenique
"Caracterización de Sólidos de Dimensiones Submicrométricas"
Escuela de Microelectrónica. Barcelona, 15-19 December, 1986
26. P.M. Echenique
"Interaction of Slow Ions with Matter"
10th International Werner Brandt Workshop on Penetration Phenomena. Alicante. Spain, 7-10 January, 1987
27. J.R. Manson, R.H. Ritchie, P.M. Echenique and A. Gras - Martí
"Self Energies and the Interaction of Particles with Surfaces"
10th International Werner Brandt Workshop on Penetration Phenomena. Alicante. Spain. 7 - 10 January, 1987
28. J.F. Annett and P.M. Echenique
"Long-Range Excitation of Electron-Hole Pairs in Atom-Surface Scattering"
10th International Werner Brandt Workshop on Penetration Phenomena. Alicante. Spain. 7 - 10 January, 1987
29. P. de Andrés, F. Flores, P.M. Echenique and R.H. Ritchie
"Barrier Potential Calculations at the Metal-Vacuum-Metal Interface"
10th International Werner Brandt Workshop. Alicante, Spain. 7-10 January 1987
30. F. Flores, F. Guinea, P.M. Echenique, R.H. Ritchie and F. Sols
"Charge States of Ions Moving in Metals"
10th International Werner Brandt Workshop. Alicante, Spain. 7-10 January 1987
31. P.M. Echenique

- "Excitation of Dielectric Spheres by Electron Beams"*
Nato Advanced Research Workshop on "RHEED and Reflection Electron Imaging of Surfaces"
Veldhoven, Holland. June (1987)
32. R.H. Ritchie, P.M. Echenique and F. Flores
"What Happens when Swift Ions Interact with Matter"
Osaka, Japan, October (1987)
 33. J. Pitarke, A. Rivacoba, P.M. Echenique and R.H. Ritchie
"Dependence of Electron Emission on Orientation of Swift Diclusters in Solids"
International Symposium on Dynamic Interactions of Charged-Particles with Solids. 8-9th
October 1987- RIKEN, Wako-Shi, Saitama, Japan
 34. J. Ugalde, C. Sarasola, P.M. Echenique and R. H. Ritchie
"Vicinity Effect in Inner-Shell Ionization"
International Symposium on Dynamic Interactions of Charged-Particles with Solids. 8-9th
October 1987- RIKEN, Wako-Shi, Saitama, Japan
 35. P.M. Echenique, F. Flores and R.H. Ritchie
"Dynamic Screening. Capture and Loss Processes of Protons Moving in Solids"
12th International Conferences on Atomic Collisions in Solids. October 12-16, 1987-Okayama,
Japan
 36. P.M. Echenique
"Interaction of Electrons with Surfaces"
American Physics Society. March Meeting 1988, 21-25 March, New Orleans U.S.A. BAPS 33 /
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 37. N. Zabala, A. Rivacoba and P.M. Echenique
"Elastic and Inelastic Interaction in STEM"
11th International Werner Brandt Workshop on "Penetration Phenomena", Oak Ridge, U.S.A.,
April 14-15, 1988
 38. A. Arnau, P.M. Echenique
"Image States on Insulators"
11th International Werner Brandt Workshop on "Penetration Phenomena", Oak Ridge, U.S.A.,
April 14-15, 1988
 39. J. Pitarke and P.M. Echenique
"Potential Barrier for Tunneling Electrons in STM"
11th International Werner Brandt Workshop on "Penetration Phenomena", Oak Ridge, U.S.A.,
April 14-15, 1988
 40. J. Pitarke, P.M. Echenique and R.H. Ritchie
"Induced Density Fluctuations in Electron-Swift Molecule Collisions"
The 10th Conference on the Uses of Small Accelerators in Research, Teaching and Industrial
Applications, Denton-Texas, U.S.A., 7-9 November 1988

41. A. Arnau, P.M. Echenique and R.H. Ritchie
"Vicinity Effect in Ion Cluster Collisions with Insulators"
 The 10th Conference on the Uses of Small Accelerators in Research, Teaching and Industrial Applications, Denton-Texas, U.S.A., 7-9 November 1988
42. A.Arnau and P.M. Echenique
"Stopping Power of an Electron for Partially Stripped Ions"
 The 10th Conference on the Uses of Small Accelerators in Research, Teaching and Industrial Applications, Denton-Texas, U.S.A., 7-9 November 1988
43. P.M.Echenique, I.Nagy and A.Arnau
"Interaction of Slow Ions with Matter"
 Sanibel Symposia 1989, Florida, U.S.A., 1-8 April 1989
44. A.Rivacoba and P.M.Echenique
"Surface Corrections to Bulk Energy Losses in STEM in Spheres"
 Scanning Microscopy 1989 Meeting. Salt Lake City, U.S.A., 1-5 May 1989
45. R.H.Ritchie, A.Howie, P.M.Echenique, G.J.Basbas, T.L.Ferrell and J.C.Ashley
"Plasmons in STEM Electron Spectra"
 International electron meeting, Park City, U.S.A., 6-12 May 1989
46. M.Peñalba, A.Arnau and P.M.Echenique
"Target Dependence of Electron Capture and Loss Cross Sections of Protons in Solids"
 13th International conference on atomic collisions in solids. Aarhus, Denmark, 7-11August 1989
47. J.L.Micholet, J.Ugalde and P.M.Echenique
"Dynamic Screening of H-like and He-like Ions"
 13th International conference on atomic collisions in solids. Aarhus, Denmark, 7-11August 1989
48. J.Garcia,P.M.Echenique and R.H.Ritchie
"Wake Binding Energy for Protons and Antiprotons"
 13th International conference on atomic collisions in solids. Aarhus, Denmark, 7-11August 1989
49. I.Nagy, A.Arnau and P.M.Echenique
"Vicinity Effect in Slow Ion Dicluster Stopping Power"
 13th International conference on atomic collisions in solids. Aarhus, Denmark, 7-11August 1989
50. A.Narmann, K.Schmidt, W.Heiland, R.Monreal, F.Flores and P.M.Echenique
"Energy Loss of Light Ions and Neutrals from Surface Scattering"
 13th International conference on atomic collisions in solids. Aarhus, Denmark, 7-11August 1989
51. N.Zabala and P.M.Echenique

- "Dispersion Effects and Spatial Resolution in STEM"*
The 12th Werner Brandt International Conference on the Penetration of Charged Particles in Matter, San Sebastian, Spain, 4-7 September 1989
52. I.Nagy and P.M.Echenique
"On the Z13 Correction of the Stopping Power"
The 12th Werner Brandt International Conference on the Penetration of Charged Particles in Matter, San Sebastian, Spain, 4-7 September 1989
53. A.Arnau, P.M.Echenique, F.Flores and R.H.Ritchie
"Stopping Power for Protons in Al"
The 12th Werner Brandt International Conference on the Penetration of Charged Particles in Matter, San Sebastian, Spain, 4-7 September 1989
54. R.Monreal, P.M.Echenique and F.Flores
"Energy Loss of Light Ions and Neutrals from Surface Scattering"
The 12th Werner Brandt International Conference on the Penetration of Charged Particles in Matter, San Sebastian, Spain, 4-7 September 1989
55. J. Garcia and P.M. Echenique
"Antiproton Wake: Theory"
US-Japan Workshop on Atomic collisions in solids, Honolulu-Hawaii, U.S.A. February 2-9 (1990)
56. J. Pitarke, P.M. Echenique and R.H. Ritchie
"Density Fluctuation Detection"
US-Japan Workshop on Atomic collisions in solids, Honolulu-Hawaii, U.S.A. February 2-9 (1990)
57. P.M. Echenique, R.H. Ritchie and J.R. Manson
"Cluster-Impact Fusion"
US-Japan Workshop on Atomic collisions in solids, Honolulu-Hawaii, U.S.A. February 2-9 (1990)
58. A. Närman, W. Heiland, C. Monreal, F. Flores and P.M. Echenique
"Charge Exchange and Energy Loss of Particles Interacting with Surfaces"
NATO Advanced Study Institute. Alicante, Spain. May 6-18. 1990
59. M. Peñalba, A. Arnau and P.M. Echenique
"Effective Charge of Helium Ions in Solids"
NATO Advanced Study Institute. Alicante, Spain. May 6-18. 1990
60. F.J. Garcia de Abajo and P.M. Echenique
"Wake Potential in the Vicinities of a Surface"
NATO Advanced Study Institute. Alicante, Spain. May 6-18. (1990)
61. R.H. Ritchie and P.M. Echenique
"Electrons Spectra in Solids"

NATO Advanced Study Institute. Alicante, Spain. May 6-18 (1990)

62. J.M. Pitarke, P.M. Echenique and R.H. Ritchie
"Dependence of Knock-on Collision Electron Emission on the Orientation of Swift Diclusters in Solids"
11th International Conference Accelerators. Denton-Texas (USA) 5-8 November (1990)
63. J.M. Pitarke and P.M. Echenique
"Multiple Scattering Effects on Electron Emission by Swift Diclusters in Solids"
11th International Conference Accelerators. Denton-Texas (USA) 5-8 November (1990)
64. P.M. Echenique, a. Arnau, M. Peñalba and I. Nagy
"Stopping Power for Slow Ions in Solids"
11th International Accelerators Conference. Denton, Texas (USA) 5-8 November (1990)
65. M. Peñalba, A. Arnau, P.M. Echenique
"Stopping Power of Carbon for Helium"
11th International Accelerators Conference. Denton-Texas (USA) 5-8 November (1990)
66. F. Flores and P.M. Echenique
"Dynamic Screening, Charge States and Energy Loss of Ions in Solids"
11th International Accelerators Conference. Denton-Texas (USA) 5-8 November (1990)
67. R.H. Ritchie, P.M. Echenique, F. Flores and J. Manson
"The Image Potential in Scanning Transmission Electron Microscopy and Scanning Tunneling Microscopy"
Nara
68. A. Arnau, P.M. Echenique and R.H. Ritchie
"Kinetic Electron Emission from a Metal Surface by Impact with Slow Heavy Ions"
Symposium on Surface Science. Obertraum, Austria 10-16 Feb. (1991)
69. J.M. Pitarke, R.H. Ritchie and P.M. Echenique
"High-Order Interactions of a Swift Charge Passing through Matter"
14th International Conference on Atomic Collisions in Solids. England
70. R.H. Ritchie, J.R. Manson and P.M. Echenique
"The Role of the Surface Plasmon in Laser Ablation of Ag⁺ Ions from an Ag Surface"
Laser Ablation Workshop. Oak Ridge, TN, USA, 8-10 April (1991)
71. M. Alducin, A. Arnau and P.M. Echenique
"Auger Capture Rates for a Slow Ion close to a Metal Surface"
International Conference on atomic collisions in solids, Salford (U.K.) 28th July - 4th August (1991)
72. M. Peñalba, A. Arnau and P.M. Echenique
"ZI Oscillations in Slow Channeled Ion Stopping Power"

International Conference on atomic collisions in solids, Salford (U.K.) 28th July - 4th August (1991)

73. J.M. Pitarke, R.H. Ritchie and P.M. Echenique
"High Order Interactions of a Swift Charge Passing through Matter"
International Conference on atomic collisions in solids, Salford (U.K.) 28th July - 4th August (1991)
74. A. Arnau, M. Peñalba, P.M. Echenique and F. Flores
"A Charge State Approach to the Stopping Power of Ions in Solids"
Stop 91. Aarhus Denmark
75. I. Nagy, P.M. Echenique and B. Vasvári
"Low Velocity Unit Charges in an Electron Gas. The Many-Body Aspects of the Stopping Power"
International Symposium on Electronic Structure of Solids. Gaussig Germany. March 11-15 (1991)
76. A. Rivacoba, N. Zabala and P.M. Echenique
"Self Energy Approach to the Energy Loss in STEM"
14th Werner Brandt Conference. 31 April - 1st May, (1992), Oak Ridge, TN (USA)
77. P. Bauer, F. Kastner, A. Arnau, A. Salin, F.D. Fainstein, V.H. Ponce and P.M. Echenique
"Phase Effect in the Energy Loss of H Projectiles in Zn Targets: Experimental Evidence and Theoretical Explanation"
14th Werner Brandt Conference. 31 April - 1st May, (1992), Oak Ridge, TN (USA)
78. E. Zaremba, A. Arnau and P.M. Echenique
"Non Linear Screening at Finite Projectile Velocities"
14th Werner Brandt Conference. 31 April - 1st May, (1992), Oak Ridge, TN (USA)
79. A. Rivacoba, M.E. Uranga and P.M. Echenique
"Plasmons in Electron Microscopy"
Workshops on Energy transfer in interactions with surfaces and adsorbates. 31st August-11st Sept. (1992) Trieste (Italy)
80. P. Bauer, F. Kastner, A. Arnau, A. Salin, F.D. Fainstein, V.H. Ponce and P.M. Echenique
"Stopping Power of Zn (solid and gas) for H Projectiles"
International Conference on Computer simulations of radiation effects in solids - COSIRES-92. 23-28 August 1992, Berlin (WG)
81. J.I. Juaristi and P.M. Echenique
"Charged Transfer Rates for Excited States of Protons at Surfaces"
International Conference on Computer simulations of radiation effects in solids - COSIRES-92. 23-28 August 1992, Berlin (WG)
82. M.E. Uranga, A. Rivacoba and P.M. Echenique
"Image States: Idea and Theoretical Development"

16th International Seminar on surface physics. Kudowa (Poland), October 5-10 (1992)

83. J. Cerdá, F.Flores, P.L. de Andres and P.M. Echenique
"A Theoretical Approach to the Transport and Switching of Xe Atoms on the Ni-W Interface of a Scanning Tunneling Microscope"
Nato Advanced Research Workshop. 12-16 October 1992. Aspet, Toulouse, France
84. J.M. Pitarke, P.M. Echenique and R.H. Ritchie
"High-Order Interactions of a Swift Ion Passing Trough Matter"
Southeastern American Physical Society Meeting Oak Ridge-TN, 12-14 November (1992)
85. F.J. Garcia de Abajo, P.M. Echenique and V.H. Ponce
"Resonant Coherent Excitation to the Continuum in Grazing Ion-Surface Collisions"
SLAFS7-CIACSA1 - Bariloche (Argentina), 15-20 November (1992)
86. P. L. de Andres, F. Flores, J.R. Cerdá and P.M. Echenique
"The STM as an Atomic Manipulating Tool, a Theoretical Approach"
SLAFS7-CIACSA1 - Bariloche (Argentina), 15-20 November (1992)
87. A. Rivacoba, N. Zabala and P.M. Echenique
"Self Energy Approach to the Energy Loss in STEM"
SLAFS7-CIACSA1 - Bariloche (Argentina), 15-20 November (1992)
88. P. Bauer, F. Kastner, A. Arnau, A. Salin, V.H. Ponce and P.M. Echenique
"On the Phase Effect in Electronic Stopping"
SLAFS7-CIACSA1 - Bariloche (Argentina), 15-20 November (1992)
89. P. Bauer, F. Kastner, A. Arnau, A. Salin, P.D. Fainstein, V.H. Ponce and P.M. Echenique
"Stopping Power of Zn (Solid and Gas) for H Projectiles"
Arredondo Workshop on Energy Deposition. University of Florida, Gainesville, 1993
90. A. Arnau, P.M. Echenique, J. A. Nobel, J.R. Sabin and S.B. Trickey
"Trajectories of Low Energy Ions in the (110) Channel of Ge"
Arredondo Workshop on Energy Deposition. University of Florida, Gainesville, 1993
91. J.A. Nobel, J.R. Sabin, S.B. Trickey, A. Arnau and P.M. Echenique
"Quasiclassical Simulation of Channeling in Extended Systems"
Sanibel Symposium (USA) 1993
92. P.L. de Andres, F. Flores, J.R. Cerdá and P.M. Echenique
"Theoretical Analysis of an Atomic Switch Based on a STM"
European Condensed Matter Conference - Regensburg, (Germany), April 1993
93. S.P. Apell, P.M. Echenique and R.H. Ritchie
"Geometrical Sum-Rules for Collective Electronic Surface Modes"
15th W. Brandt Conference on Penetration Phenomena. University of Florida, Gainesville, Florida (USA), March 1994

94. R. Díez Muiño, A. Arnau and P.M. Echenique
"Auger Capture and Transition Rates for Highly Charged Ions in an Electron Gas"
International Conference on HCI, 18-23 Sept. Vienna (1994)
95. "A. Bergara, J.M. Pitarke, R.H. Ritchie and P.M. Echenique
"Non-Linear Wake in the Random-Phase-Aproximation"
European Science Foundation "Particle Solid Interaction", 1-6 Oct. San Sebastián, 1994
96. F. J. Garcia de Abajo and P.M. Echenique
"Particle Solid Interaction"
ESF, European Science Foundation, 1-6 Oct. San Sebastián, 1994
97. F.J. Garcia de Abajo and P.M. Echenique
"Dynamic Screening at Surfaces"
Symposium on Surface Science, Kitzsteinhorn, Salzburg, Austria, 23-29 April 1995
98. R. Díez Muiño, N. Stolterfoht, A. Arnau, A. Salin and P.M. Echenique
"The Filling of the L-Shell of Hollow Atoms in Solids: Auger and Resonant Vacancy Transfer Mechanisms"
Symposium on Surface Science, Kitzsteinhorn, Salzburg, Austria 23-29, April 1995
99. M. Alducin and P.M. Echenique
"Auger Deexcitation in a Helium Atom Induced by a Metal Surface"
Symposium on Surface Science, Kitzsteinhorn, Austria 23-29, April 1995
100. F. J. García de Abajo and P. M. Echenique
"Impact-Parameter Dependence of Resonant Coherent Excitation in Planar Channeling"
16th International Conference on Atomic Collisions in Solids, Linz, Austria, 17-21 July 1995
101. M. Peñalba, A. Arnau and P.M. Echenique
"Stopping Power for Protons in Carbon: Diamond, Graphite and Amorphous Carbon"
16th International Conference on Atomic Collisions in Solids, Linz, Austria, 17-21 July 1995
102. R. Díez Muiño, A. Arnau, A. Salin and P. M. Echenique
"Energy Loss of Hydrogen Projectiles in Gas and Solid Magnesium: the Phase Effect"
16th International Conference on Atomic Collisions in Solids, Linz, Austria, 17-21 July 1995
103. R. Díez-Muiño, A. Arnau and P. M. Echenique
"Auger Rates of Highly Charged Ions in Metals"
W. B. International Conference, Oak Ridge, TN, USA, 8-9- January 1995
104. E. Zaremba, P. M. Echenique and I. Nagy
"Nonlinear Screening in Two-Dimensional Electron Gases and Stopping of Charged Particles"
International Workshop on Ion-solid Interaction, 11-16 March 1996, Les Houches (France)
105. J. García, J. Osma and P. M. Echenique
"Image Potential and Auger Rates from the Interaction of Ions with LiF"

- International Workshop on Ion-solid Interaction, 11-16 March 1996, Les Houches (France)
106. A. Arnau, I. Juaristi and P. M. Echenique
"ZI Oscillations in Electron Emission"
 International Workshop on Ion-solid Interaction, 11-16 March 1996, Les Houches (France)
 107. J. Osma, F. J. García de Abajo and P. M. Echenique
"Screening and Image Potential"
 International Workshop on Ion-solid Interaction, 11-16 March 1996, Les Houches (France)
 108. E. Zarate, E. Tchulkov, A. Arnau and P. M. Echenique
"Electronic Lifetimes in Metals: Low and High Energy Regimes"
 International Workshop on Ion-solid Interaction, 11-16 March 1996, Les Houches (France)
 109. M. A. Cazalilla, F. J. García de Abajo and P. M. Echenique
"Influence of the Density Profile in the Image Potential and Stopping Power of Ions near Metal Surfaces"
 International Workshop on Ion-solid Interaction, 11-16 March 1996, Les Houches (France)
 110. H. Eder, M. Vana, F. Aumayr, H. P. Winter, A. Arnau, I. Juaristi and P. M. Echenique.
"On Projectile Charge State Dependence of Ion Induced Electron Emission from Clean Gold"
 European Physical Society. Seville, Spain. September (1996)
 111. A. Bergara, J. M. Pitarke, P. M. Echenique and I. Nagy.
"Second Order Response of a Two-Dimensional Electron Gas"
 15th Conference of the Condensed Matter Division. European Physical Society. Baveno-Stresa, (Italy). April 22-25, (1996)
 112. E. Chulkov, V.M. Silkin and P. M. Echenique
"Binding Energy and Lifetime of Image Potential States on Metal Surfaces"
 ECOSS-16, Genoa, Italy, 9-13 September, 1996
 113. J. M. Pitarke, J. B. Pendry, P. M. Echenique and A. Rivacoba.
"Electron Energy Loss in a System of Metallic Cylinders"
 ECOSS-16, Genoa, Italy, 9-13 Sept. 1996
 114. J. Osma and P.M. Echenique
"Energy Loss in Electronic Emission from Solid Surfaces"
 ECOSS-16, Genoa, Italy, 9-13 Sept. 1996
 115. A. Salin, A. Arnau, P.M. Echenique
"The Role of Incoherent Depopulation Processes on Resonant Coherent Excitation of Channeled Ions in Crystals"
 ICACS, Beijing, 2-6 July, 1997
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125. P.M. Echenique, J.I. Juaristi, E. Chulkov and A. Arnau
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129. V.M. Silkin, M. Machado, E.V. Chulkov, P.M. Echenique
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18th (ECOSS) European Conference on Surface Science, Vienna (Austria) 21-24 September 1999
130. E.V. Chulkov, V.M. Silkin, P.M. Echenique
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131. I. Sarria, J.M. Pitarke, P.M. Echenique
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133. I. Campillo, A. Rubio, J.M. Pitarke, E. Zarate and P.M. Echenique
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Symposium on Computational Approaches to Predicting the Optical Properties of Materials
MRS, Fall Meeting. Boston, USA, 30 November-3 December (1999)
134. J. Kliewer, R. Berndt, E.V. Chulkov, P.M. Echenique and S. Crampin
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Deutsche Physikalische Gressellschaft. Regensburg, Germany 27-31 March (2000)
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8th Joint Vacuum Conference, June 4-9, 2000, Pula (Croatia)
138. P.M. Echenique, J. Osma, M. Machado, V.M. Silkin, E.V. Chulkov and J.M. Pitarke
"Surface-state electron dynamics in noble metals"
20th International Seminar on Surface Physics, June 19-24, 2000, Kudowazdrój, Poland
139. I. Sarría, J. Osma, J.M. Pitarke, E.V. Chulkov and P.M. Echenique
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141. P.M. Echenique
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Third Summer School of TMR network, San Sebastián, Spain, July 25-30 (2000)
142. E.V. Chulkov, V.M. Silkin and P.M. Echenique
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ECOSS-19, Madrid, Spain, September 5-8 (2000)
143. M. Machado, V.M. Silkin, E.V. Chulkov and P.M. Echenique
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144. V.M. Silkin, M. Machado, S.V. Eremeev, E.V. Chulkov and P.M. Echenique
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145. J.M. Pitarke, I.G. Gurtubay, I. Campillo, A. Rubio and P.M. Echenique
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CECAM workshop, Lyon France, September (2000)
146. V.P. Joukov, E.V. Chulkov, P.M. Echenique
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150. A. Eiguren, E. Chulkov, B. Hellsing and P.M. Echenique
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152. A. Eiguren, Bo Hellsing, E Chulkov and P.M. Echenique
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 20th European Conference on Surface Science, ECOSS 20, Krakow, Poland. September 4 – 7, 2001.
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158. V.P. Zhukov, E.V. Chulkov and P.M. Echenique
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 21st Werner Brandt Workshop on Penetration Phenomenon, Donostia- San Sebastián (Spain) September 17 – 18, 2001.
159. V.P. Zhukov, E.V. Chulkov and P.M. Echenique.
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 19th International Conference on atomic collisions in solids
 ICASS 19, París (France) 29 July – 3 August, 2001.
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“The lifetime of quasi-particle excitations in para-and ferromagnetic transition metals. LMTO GW approach and scattering theory model calculations.”
 International Workshop on Total Energy Methods in Computational Condensed Matter.
 La Laguna-Tenerife (Spain) 10-12 January, 2002
161. P.M. Echenique, E.V. Chulkov, V.M. Silkin
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 14 Symposium on Surface Science 2002
 St. Christoph, Alberg (Austria) 3-9 March, 2002
162. L.Vitali, P.Wahl, M.A. Schneider, K.Kern, V.M. Silkin, E.V.Chulkov and P.M. Echenique.
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 European Conference on Surface Science- ECOSS-21.
 Malmo, Sweden, 24-28 June 2002.
163. B.Hellsing, A.Eiguren, E.V Chulkov and P.M. Echenique.
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 European Conference on Surface Science- ECOSS-21
 Malmo, Sweden, 24-28 June 2002.
164. E.V. Chulkov, V.P. Zhukov, V.M. Silkin and P.M. Echenique.
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 22nd Werner Brandt Workshop
 Namur, Belgium, 27-29 June 2002
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 Namur, Belgium, 27-29 June 2002

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167. E. Zaremba, I. Nagy and P.M. Echenique.
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Workshop, Montreal. Canada. 4-6 October 2002.
168. A. Arnau, W.A.Hofer, V.M. Silkin, E.V. Chulkov and P.M. Echenique
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169. A. Sarasola, V.M. Silkin, A. Arnau and P.M. Echenique
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Roma, Italy. 27 July-1 August 2003
174. V.P. Zhukov, E.V. Chulkov and P.M. Echenique
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176. R. Keyling, E.V.Chulkov and P.M. Echenique

- “Many body theory of electronic properties of Beryllium, Magnesium and Molybdenum surface”*
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“The Cherenkov effect in photonic crystals”
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179. D. Sánchez Portal, R. Diez Muiño, W. Wurth, D. Menzel and P.M. Echenique
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TNT 2003, Salamanca, Spain. 2003
180. F.J. García de Abajo, A.G. Pattantyus-Abraham, A. Rivacoba, N. Zabala, M.O. Wolf and P.M. Echenique.
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183. A. Sarasola, S. Silkin, A. Arnau and P.M. Echenique
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184. A. Arnau, C. Corriol, W.A. Hofer, P.M. Echenique, F.J. Callja, J.I. Hinarejos, A. L. Vázquez de Parga and R. Miranda
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186. E.V. Chulkov, J. Kliewer, R. Berndt, V.M. Silkin, B. Hellsing, S. Crampin and P.M. Echenique
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187. V.M. Silkin, E.V. Chulkov and P.M. Echenique
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190. I. G. Gurtubay, J.M. Pitarke and P.M. Echenique
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“Cherenkov effect in EELS of nanoporous alumina”
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“Stopping power and Cherenkov radiation in photonic crystals”
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195. M. Garcia-Vergniory, P.M. Pitarke and P.M. Echenique.
“Self-energy and lifetimes of surface states beyond the GW approximation”.
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Spring Meeting of the German Physical Society, Berlin, Germany, 4-9 March (2005).
197. A. Rodríguez Prieto, V.M. Silkin, A. Bergara and P.M. Echenique.
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3S05, Symposium on Surface Science, Les Arcs, France, 13-19 March, 2005
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202. V.P. Zhukov, E.V. Chulkov and P.M. Echenique
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203. V.P. Zhukov, E.V. Chulkov, P.M. Echenique
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206. A. Ayuela, D. Sánchez-Portal, A. Rubio and P.M. Etxenike.
 J. S. Dolado, I. Campillo, Y.R. de Miguel, E. Erkizia and A. Porro
 “Silicate chain formation during the cement hydration process”
 TNT Workshop. Oviedo, Spain, 29 August- 2 September 2005
207. C. Corriol, J.I. Pascual, G. Ceballos, H.-P. Rust, K. Horn, J.M. Pitarke, P.M. Echenique and A.
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 “Probing surface electron dynamics with STS: elastic and inelastic effects in Di/Dv spectra”
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208. Aritz Leonardo, I. Yu Sklyadneva, P.M. Echenique and E.V. Chulkov.
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 Hirahara, Ph. Hofmann, Yu. M. Koroteev, T. Nagao, J.I. Pascual.
 “Spin-orbit interaction effects in metals: Bi surfaces and ultrathin films”
 Symposium on Surface Science 2006.
 St. Christoph am Arlberg, Austria. 5-11 March (2006) Oral.
210. María José Cabrera-Sanfelix, Daniel Sánchez-Portal, Andrés Arnau, George Darling and Pedro
 Miguel Echenique.
 “Water adsorption and difusión on (100) NaCl surfaces”.
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 St. Christoph am Arlberg, Austria. 5-11 March (2006) Oral.
211. V.M. Silkin, I.A. Nechaev, E.V. Chulkov and P.M. Echenique.
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213. M. Bauer, M. Wessendorf, S. Matthias, J. Lange, M. Aeschlimann, V.M. Silkin, A.G. Borisov, P.M. Echenique, J.P. Gauyacq and E.V. Chulkov.
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216. R. Díez Muiño, M. Quijada, A.G. Borisov, P.M. Echenique
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218. M.G. Vergniory, J.M. Pitarke, P.M. Echenique
“Surface-state self-energy and lifetimes beyond the GW approximation”
 26th Brandt Ritchie Workshop, Paris, 16-18 July, 2006
219. Eremeev S. Rusina G. Borisova S., Echenique P., Benedek G., Sklyadneva I., Chulkov E.
“Electron-phonon coupling in sodium monolayer on Cu(111).”
 ECOSS, Paris, 4-8TH September, 2006.
219. Eremeev S. Rusina G. Borisova S., Echenique P., Benedek G., Sklyadneva I., Chulkov E.
“Electron-phonon coupling in sodium monolayer on Cu(111).”
 ECOSS, Paris, 4-8TH September, 2006.
220. Mönnich A., Zhukov V., Chulkov E., Echenique P.M., Bauer M., Aeschlimann M.
“Lifetime of quasiparticle excitations in the rare-earth element ytterbium”
 ECOSS, Paris, 4-8TH September, 2006.

221. Diaconescu B., Pohl K., Vattuone L., Savio L., Hofmann P., Silkin V., Chulkov E., Echenique P. Farias D., Rocca M.
“Acoustic collective excitation of a 2D electron gas on metal surfaces”
 ECOSS, Paris, 4-8TH September, 2006
222. Wiesenmayer M., Wessendorf M., Mathias S., Silkin V., Borisov A.G., Echenique P.M., Gauyacq J.P., Chulkov E.V., Aeschlimann M., Bauer M.
“Ultrafast decay dynamics of a photoexcited adsorbate in interaction with a two-dimensional metallic substrate”.
 ECOSS, Paris, 4-8TH September, 2006
223. Sklyadneva I.Y., Echenique P.M., Chulkov E.V.
“Phonon-induced decay of surface states on Pd(111)”
 ECOSS, Paris, 4-8TH September, 2006
224. P. Lazic, V.M. Silkin, E.V. Chulkov, P.M.Echenique and B. Gumhalter.
“Extreme ultrafast dynamics of quasiparticle excited in surface electronic bands”
 5th International Symposium on Ultrafast Surface dynamics
 Abashiri, Hokkaido, Japan, 21-25th May 2006
225. I.Yu. Sklyadneva, P.M. Echenique, and E.V. Chulkov
“Electron-phonon interaction and electron (hole) lifetimes in Mg Bz”
 8th International Conference on Materials and Mechanisms of superconductivity and HTG
 Dresden, Germany, 9-14th July, 2006
226. E.V. Chulkov, P.M Echenique, A. Leonardo, I. Yu. Sklyadneva, and V.M. Silkin
“Dynamics of electrons and holes at surfaces”
 13th International Conference on Solid Films and Surfaces
 Bariloche, Argentina, 6-10th November 2006
227. Bogdan Diaconescu, Karsten Pohl, Luca Vattuone, Letizia Savio, Philip Hofmann, Vyacheslav Silkin, Jose M. Pitarke, Eugene Chulkov, Pedro Echenique, Daniel Farias and Mario Rocca
“Low-energy Acoustic Collective Excitation on Metal Surfaces”
 2007 APS March Meeting, Denver, USA, 5-9th March, 2007-07-26
228. V. Sametoglu, A. Winkelmann, J. Zhao, H. Petek, N. Pontius, A.G. Borisov, and P.M. Echenique
“Characterization of the Unoccupied Electronic Structure of Alkali Atoms on Noble Metal Surfaces by Time- and Angle-Resolved Two-Photon Photoemission”
 2007 APS March Meeting, Denver, USA, 5-9th March, 2007
229. S.V. Eremeev, G.G. Rusina, S.D. Borisova, P.M. Echenique, G. Benedek, I.Yu Sklyadneva, and E.V. Chulkov
“Phonon spectra and electron-phonon coupling in a monolayer structure of Na on Cu(111)”
 3S’07 Symposium on surface Science 2007, Les Arcs, France, March 11-17, 2007

230. U. Heinzmann, S. Hendel, N. Müller, T. Uphues, M. Drescher, L. Blümel, B. Schmidt, A. Baltuska, A. Cavaliere, B. Horvarth, R. Kienberger, U. Kleineberg, F. Krausz, V. Yakovlev, and P.M. Echenique
“Attosecond time-resolved photoemission on metal surfaces”
 3S’07 Symposium on surface Science 2007, Les Arcs, France, March 11-17, 2007
231. A. Leonardo, F. Schiller, E. Ortega E.V. Chulkov and P.M. Echenique
“Quantum well states as fabry-pérot modes in Mg/W(110)”
 3S’07 Symposium on surface Science 2007, Les Arcs, France, March 11-17, 2007
232. V.M. Silkin, E.V. Chulkov, and P.M. Echenique
“The role of surface state in the surface response function of metals”
 3S’07 Symposium on surface Science 2007, Les Arcs, France, March 11-17, 2007
233. I. Yu Sklyadneva, P.M. Echenique, E.V. Chulkov
“Ab initio calculation of electron-phonon coupling at metal surfaces: Al (001)”
 Workshop on Ab-initio approaches to electron-phonon coupling and superconductivity, Donostia-San Sebastian, May 28-30, 2007
234. S.V. Eremeev, S.D. Borisova, G.G. Rusina, P.M. Echenique, G. Benedek, I. Yu Sklyadneva and E.V. Chulkov
“Electron-phonon coupling in quantum well state at sodium monolayer on Cu (111)”
 Workshop on Ab-initio approaches to electron-phonon coupling and superconductivity, Donostia-San Sebastian, May 28-30, 2007-07-26
235. F. Schiller, A. Leonardo, E.V. Chulkov, P.M. Echenique and E. Ortega
“Reflectivity determination via quantum well states at the Mg/W interface”
 15th International Conference on Vacuum Ultraviolet Radiation Physics, Berlin, July 29-August 3, 2007
236. M. Quijada, A.G. Borisov, R. Díez Muino and P.M. Echenique
“Size-dependence of electron dynamics in metal clusters”
 EPRS (Elementary Reactive Processes at surfaces) 2007, Donostia-San Sebastián, Spain, August 30-September 1, 2007
237. V.P. Zhukov, E. V. Chulkov and P.M. Echenique
“First principle GW+SO approach to the study of spin relaxation times of excited electrons in metals”
 TNT 2007, Donostia-San Sebastián, Spain, 3-7 September 2007
238. M. Quijada, R. Díez Muino, A. G. Borisov and P.M. Echenique
“Energy loss of charges interacting with metallic nanoparticles”
 TNT 2007, Donostia-San Sebastián, Spain, 3-7 September 2007
239. V.M. Silkin, M. Alducin, J.I. Juaristi, E.V. Chulkov and P.M. Echenique

“The role of an electronic surface state in the stopping power of a swift charge particle in front of a metal”

Zvenigord, Russia, 14 September, 2007

240. A. Reyes-Coronado, J. Aizpurua, P.M. Echenique, R.G. Barrera, P.E. Baton
“Electromagnetic forces in plasmonic nanoparticles induced by fast electron beams”
2° European Topical Meeting on Nanophotonics and Metamaterials. Seefeld, Tirol, Austria, 5-8 January 2009
241. Ch. Brun, I-Po Hong, F. Patthey, I. Yu. Sklyadneva, R. Heid, P.M. Echenique, K.P Bohnen, E.V. Chulkov and W.D. Schneider
“Reduction of the critical temperature in ultrathin superconducting Pb nanocrystals”
Symposium on Surface Science 2009, St. Moritz, Switzerland, March 8-14, 2009
242. I. Yu. Sklyadneva, R. Heid, P.M. Echenique, K.P Bohnen and E.V. Chulkov
“Electrons, phonons, and electron-phonon interaction in ultrathin films of Pb”
Symposium on Surface Science 2009, St. Moritz, Switzerland, March 8-14, 2009
243. G. Gumbs, D. Huang and P.M. Echenique
“The image potential for graphene with an electrostatic grating”
APS March meeting, Pittsburg USA, 2009
244. O. Berman, G. Gumbs and P.M. Echenique
“Quasiparticles for quantum dot array in graphene and the associated magnetoplasmons”
APS March meeting, Pittsburg USA, 2009
245. V.M. Silkin, E.V. Chulkov, B. Hellsing and P.M. Echenique
“Acoustic surface plasmon on metal surface with adlayers”
The Brandt Ritchie Symposium, Madrid, May 25-27, 2009
246. K. Pohl, B. Diaconescu, V.M. Silkin, E.V. Chulkov, P.M. Echenique, G. Verelli, L. Vattuone and M. Rocca
“Novel acoustic plasmons on Cu(111) surface”
ECOSS 2009, Parma, Italy, August 29- September 4, 2009
247. M.F. Jensen, E.D.L. Rienks, I.A. Nechaev, V.M. Silkin, P.M. Echenique, E.V. Chulkov and Ph. Hofmann
“Electron Dynamics in systems with strong spin-orbit splitting of the bands”
ACSIN-10, 10th International Conference on Atomically Controlled Surfaces, Interfaces and Nanostructures, Granada, Spain, September 22-25, 2009
248. I.Yu. Sklyadneva, R. Heid, K.P. Bohnen, P.M. Echenique and E.V. Chulkov
“Electron-phonon coupling in ultrathin Pb(111) films”
ACSIN-10, 10th International Conference on Atomically Controlled Surfaces, Interfaces and Nanostructures, Granada, Spain, September 22-25, 2009

249. I-Po Hong, C. Brun, F. Patthey, W.D. Schneider, . Yu. Sklyadneva , X. Zubizarreta, R. Heid , V. M. Silkin , P. M. Echenique , K. P.Bohnen , E. V. Chulkov
“Superconductivity and decay mechanisms of quantum-well states in ultrathin Pb/Si(111) islands: scanning tunneling spectroscopy and ab initio calculations”
 International Conference on Nanostructures at surfaces, Ascona, Switzerland, September 20-25, 2009
- 250.A.K. Kazansky and P.M. Echenique
“Theoretical Studies of Ultrafast Processes at Metal Surfaces”
 Frontiers in Intense Laser-Matter Interactions Theory, Max Planck Institute of Quantum Optics, Garching, Germany, March 1-3, 2010
251. B. Borca, S. Barja, M. Garnica, D. Sánchez-Portal, S. Silkin E. Chulkov, F. Hermans, J.J. Hinarejos, A.L. Vázquez de Parga, A. Arnau, P.M. Echenique and R. Miranda
“Field emission resonances on periodically rippled grapheme”
 Symposium on Surface Science 2010 (3S10), Sr. Christoph am Arlberg, Austria, March 7-13, 2010
252. E.V. Chulkov, A. Zugarramurdi, X. Zubizarreta, I.Yu. Sklyadneva, P.S. Kirchmann, L. Retting, I-Po. Hong, Ch. Brun, V.M. Silkin, N. Zabala, A.G. Borisov, R. Heid, P.M. Echenique, K.P. Bohnen, U. Bovensiepen and W.D. Schneider
“Dynamics of excited electrons in thin films of lead”
 Symposium on Surface Science 2010 (3S10), Sr. Christoph am Arlberg, Austria, March 7-13, 2010
253. J. Aizpurua, A. Reyes-Coronado, P.E. Batson, R. Barrera and P.M. Echenique
“Electromagnetic forces induced in metallic nanoparticles by fast electron beams”
 Satellite meeting of the NFO-11 Conference Frontiers in Plasmonics, Xian, China, September 3-7, 2010
- 254.E.V. Chulkov, V. Silkin, X. Zubizarreta, S. Tsirkin, A. Zugarramurdi, I. Nechaev, I. Sklyadneva, S. Eremeev and P.M. Echenique
“Decay mechanisms of electron excitations on clean and nanostructured metal surfaces”
 “Passion for Electrons”, Passion for Knowledge, Donostia-San Sebastián, September 27- October 1, 2010
255. A. Lucas, G. Benedek, M. Sunjic and P.M. Echenique
“Plasmon tsunami on C60 caused by electron transfer to a highly charged ion”
 “Passion for electrons”, Passion for Knowledge, Donostia-San Sebastián, September 27- October 1, 2010
256. S. Barja, B. Borca, M. Garnica, D. Sanchez-Portal, V. Silkin, E.V. Chulkov, J.J. Hinarejos, A. L. Vazquez de Parga, A. Aranau, P.M. Echenique and R. Miranda
“Field Emission Resonances on periodically rippled graphene”

Passion for interfaces, Passion for Knowledge, Donostia-San Sebastián, September 27- October 1, 2010

257. A. Reyes-Coronado, J. Aizpurua, P.M. Echenique R. Barrera and P.E. Batson
“Moving plasmonic nanoparticles through electromagnetic forces induced by fast electron beams”
Passion for photons, Passion for Knowledge, Donostia-San Sebastián, September 27-October 1, 2010
258. I.Yu. Sklyadneva, E.V. Chulkov, P.M. Echenique, R. Heid, K.P. Bohnen, J.P. Toennies and G. Benedek
“Unveiling mode-selected electron-phonon interaction in metal films by helium atom scattering”
International workshop on Scattering of atoms and molecules from surfaces. The Weizmann Institute of Science, Rehovot, Israel, October 24-28, 2010
259. V.M. Silkin, V. Despoja, E.V. Chulkov and P.M. Echenique
“Ultrafast screening of a point charge at a metal surface”
Symposium on Surface Science 2011 (3S'11), Baqueira Beret, Lleida, Spain, March 6-12, 2011
260. A. Hernando, P. Crespo, M.A. García, J.M. Coey, A. Ayuela and P.M. Echenique
“Orbital magnetic momento and anisotropy at the surface band of nanoparticles: Giant paramagnetism”
RTNSA 2011, Ordizia, June 1-4, 2011
261. A. Hernando, P.M. Echenique, P. Crespo, A. Ayuela, M.A. García and J.M. Coey
“Intrinsic magnetism at the surface band of nanoparticles”
ISMANAM 2011, Gijón, June 26- July 1, 2011
262. V.M. Silkin, J.P. Echeverry, V. Despoja, P.M. Echenique and E.V. Chulkov
“Low-energy collective electronic excitations in thin metallic films”
Symposium on Surface Science 2012 (3S'12), St. Christoph am Arlberg, Austria, March 11-17, 2012

4.4. SELECTED RECENT SEMINARS (BY INVITATION)

Numerous courses and seminars in various universities and research centers including Aarhus, Cambridge, Lund, Copenhagen, Bell Telephone Labs (New Jersey), Berkeley, University of Tennessee, Trieste, Barcelona, Madrid, Hawaii, Linz (Austria), Berlín, IBM (New York), Riken, Franzfurt, London, Bern, Oak Ridge, Viena, Helsinki, Kyoto, Zurich, Bariloche, Coimbra, París, Brookhaven (USA), Columbia, Rutgers, Stuttgart, York, Grenoble, NY University, Lausanne, Madburg, Kiel, Bielefeld.

5. RESEARCH PROJECTS FUNDED BY GRANTS IN RECENT YEARS

Project: *"Interacciones Dinámicas de Iones y Electrones con Superficies y Sólidos"*
Source of Grant: CAYCIT
Principal Researcher: P. M. Echenique
Duration: 1986-1989

Project: *"Apantallamiento Dinámico en Sólidos y Superficies. Interacción de Pruebas con la Materia Condensada"*
Source of Grant: Departamento de Educación (G. V.)
Principal Researcher: P. M. Echenique
Duration: 1987-1989

Project: *"Fenómenos de Superficie y No Lineales en el Intercambio de Energía entre Iones y Plasmas"*
Source of Grant: Departamento de Educación (G. V.)
Principal Researcher: P. M. Echenique
Duration: 1989-1991

Project: *"Estados de Carga y Pérdidas de Energía de Iones en Sólidos y Superficies"*
Source of Grant: UPV
Principal Researcher: P. M. Echenique
Duration: 1990-1990

Project: *"Ioi Lasterren eta Plasma Elektronikoen Arteko Elkarre-Kintzaren Ondorioz Igorritako Erradiazioaren Aldakuntza eta Elektroi Emisioa"*
Source of Grant: UPV
Principal Researcher: P. M. Echenique
Duration: 1989-1989

Project: "Transferencia de Energía de Partículas y Antipartículas en Plasmas"
Source of Grant: CAYCIT
Principal Researcher: P. M. Echenique
Duration: 1990-1991

Project: *"Dinámica de Interacciones de Partículas con Superficies"*
Source of Grant: Departamento de Educación (G. V.)
Principal Researcher: P. M. Echenique
Duration: 1990-1993

Project: *"Interaction of Slow, Higly Charged Ions with Solid Surfaces"*
Source of Grant: Comunidad Europea
Principal Researcher: Nikolaus Stolterfoth
Duration: 1993-1996

Project: *"Efectos de Agregación en Transferencia de Energía en Materiales Sólidos"*
Source of Grant: CIACYT
Principal Researcher: P. M. Echenique
Duration: 1992

Project: *"Transferencia de Carga y Pérdida de Energía en la Interacción de Iones con Sólidos y Superficies"*
Source of Grant: DGICYT
Principal Researcher: P. M. Echenique
Duration: 1993-1997

Project: *"Charge Exchange Processes at Surfaces"*
Source of Grant: European Community
Principal Researcher: V. Kempter
Duration: September 1994 - September 1996

Project: *"Quantification of Surface Analysis by Low Energy"*
Source of Grant: European Community
Principal Researcher: H. Brongermsa
Duration: December 1994 - December 1996

Project: *"Estudio de las Propiedades de la Superficie y el Volumen de Materiales Sólidos a través de su Interacción con Partículas Atómicas"*

Source of Grant: Basque Government
Principal Researcher: P. M. Echenique
Duration: January 1994 - December 1995

Project: *"Procesos de Interacción de Partículas Cargadas con la Superficie y el Volumen de Materiales Sólidos"*
Source of Grant: Basque Government
Principal Researcher: P. M. Echenique
Duración: January 1996- December 1997

Project: *"Vida Media de Excitaciones Electrónicas en Superficies"*
Source of Grant: Ministerio de Educación y Cultura (Acción Integrada España - Alemania)
Principal Researcher: P. M. Echenique
Duration: 1998 - 1999

Project: *"Vidas Medias de Estados Electrónicos en el Volumen y Superficie..."*
Source of Grant: Basque Government
Principal Researcher: P. M. Echenique
Duration: 1998 -99 - 2000

Project: *"Propiedades de Estados Electrónicos Excitados en Experimentos de Fotoemisión"*
Source of Grant: Basque Government
Principal Researcher: P. M. Echenique
Duration: 1999

Project: *"Intercambio de Carga, Pérdida de Energía y Procesos Electrónicos Relacionados con la Interacción de Iones y Electrones en Sólidos"*
Source of Grant: Ministerio de Educación y Cultura
Principal Researcher: P. M. Echenique
Duration: 1998 - 2000

Project: *"Interacción de partículas cargadas con sólidos y superficies"*
"Respuesta dinámica y efectos de muchos cuerpos en sólidos"
"Nanoestructuras. Microscopía electrónica y de efecto túnel"
Source of Grant: UPV/EHU
Principal Researcher: P. M. Echenique
Duration: 1999, 2000 – 2001

Project: *"Max Planck Award for International Cooperation..."*

Source of Grant: Max Planck Foundation, A. Von Humboldt Foundation
Principal Researcher: P. M. Echenique
Honorarium: 250.000 DM
Duration: 1999 - 2003

Project: *"Excitaciones electrónicas en nanoestructuras y superficies"* Grupos de Investigación Consolidado y de Alto Rendimiento
Source of Grant: G.V. - UPV/EHU.
Honorarium: 66.500.000 ptas.
Principal Researcher: P. M. Echenique
Duration: 2001 – 2003

Project: *"Teoría de excitaciones electrónicas en nanoestructuras y superficies"*
Source of Grant: MC y T
Honorarium: 188.116,78 Euros
Principal Researcher: P. M. Echenique
Duration: 2001 – 2003

Project: *"Structural and electronic properties of vicinal copper surfaces"*. Marie Curie
Source of Grant: European Commission
Principal Researcher: P. M. Echenique
Honorarium: 119.708 Euros
Duration: 2001 – 2002

Project: *"NANOMAT: Nanomateriales para aplicaciones multisectoriales"*
Source of Grant: Basque Government-ETORTEK
Principal Researcher: P. M. Echenique
Honorarium: 123.000 Euros (DIPC)
Duration: 2002 – 2004

Project: *"Nanoquanta"*
Source of Grant: European Commission
Principal Researcher: Rex W. Godby.
Honorarium: 440.000 Euros (Spanish node: P.M. Echenique)
Duration: 2004 – 2008

Project: *"Metamorphose"*
Source of Grant: European Commission
Principal Researcher: Sergei Tretyakov
Honorarium: 120.000 Euros (Spanish node: P.M. Echenique)
Duration: 2004 – 2008

Project: *"Electron phonon interactions at surfaces and metallic overlayers"*
 Source of Grant: NATO
 Principal Researcher: P.M. Echenique
 Honorarium: 11.000 Euros
 Duration: 2004 – 2008

Subproject: *" Electrones en nanoestructuras: modelización desde primeros principios (FIS 2004-06490-C03-01)"*. Dentro del proyecto "Respuesta dinámica en nanoestructuras y sistemas de baja dimensionalidad".
 Source of Grant: MCyT
 Principal Researcher: P.M. Echenique
 Honorarium: 156.400,00 Euros
 Duration: 2005 – 2007

Project: *"NANOTRON:Nanociencia y nanotecnología para micro y nanosistemas"*
 Source of Grant: Basque Government-ETORTEK
 Principal Researcher: P.M. Echenique
 Honorarium: 370.052 Euros (DIPC)
 Duration: 2005 – 2007

Project: *"NANOMATERIALES: Nanomateriales multifuncionales"*
 Source of Grant: Basque Government-ETORTEK
 Principal Researcher: P.M Echenique
 Honorarium: 233.588 Euros (para DIPC)
 Duration: 2005 – 2007

Project: *"NANO GUNE"*
 Source of Grant: Diputación Foral de Gipuzkoa
 Principal Researcher: P.M. Echenique
 Honorarium: 301.819 Euros (para DIPC)
 Duration: 2005 – 2007

Project: *"CONSOLIDER: Creación de un nuevo centro de I+D para la coordinación, desarrollo y gestión de la investigación en nanociencias en el País Vasco"*
 Source of Grant: Ministerio de Educación y Ciencia
 Principal Researcher: P.M. Echenique
 Honorarium: 4.500.000 Euros
 Duration: 2006 – 20011

Project: *"Dinámica de electrones en nanoestructuras y superficies"*
 Source of Grant: Ministerio de Educación y Ciencia

Principal Researcher:	A. Arnau
Honorarium:	242.000 Euros
Duration:	2007-2009
Project:	Grupo de Física Teórica del Sólido
Source of Grant:	UPV y Gobierno Vasco
Principal Researcher:	A. Arnau
Honorarium:	561.968,01 Euros
Duration:	2007-2012
Project:	NANOICT (ICT nano sclae devices)
Source of Grant:	Comunidad Europea
Principal Researcher:	P.M. Echenique (Nodo UPV/EHU, Coordinador A. Correia)
Honorarium:	1.000.000 Euros
Duration:	2008-2010
Project:	iNANOGUNE
Source of Grant:	Basque Government-ETORTEK
Principal Researcher:	Pedro Miguel Echenique
Honorarium:	205.343 Euros
Duration:	2008-2010
Project:	iNANOGUNE2
Source of Grant:	Basque Government-ETORTEK
Principal Researcher:	Pedro Miguel Echenique
Honorarium:	215.002 Euros
Duration:	2009-2011

6. RELEVANT RESEARCH CONTRACT WITH COMPANIES OR ADMINISTRATION

Project: *“Investigación en ciencia de nuevos materiales”*
Source of Grant: Gipuzkoako Foru Aldundia
Principal Researcher: P.M. Echenique, J. Colmenero
Honorarium: 360.000 Euros
Duration: 1989- 1995

Project: *“Relación entre dinámica y propiedades de algunas aleaciones de materiales poliméricos de interés tecnológico”*
Source of Grant: Iberdrola S.A.
Principal Researcher: J. Colmenero, codirector P.M. Echenique
Honorarium: 10.000.000 pts.
Duration: 1992- 1994

Project: *“Contribución al desarrollo de nuevos materiales”*
Source of Grant: Iberdrola S.A.
Principal Researcher: J. Colmenero, codirector P.M. Echenique
Honorarium: 10.000.000 pts.
Duration: December 1994- December 1995

Project: *“Contribución al desarrollo de nuevos materiales II”*
Source of Grant: Iberdrola S.A.
Principal Researcher: J. Colmenero, codirector P.M. Echenique
Honorarium: 10.000.000 pts.
Duration: January 1996- December 1996

Project: *“Contribución al desarrollo de nuevos materiales III”*
Source of Grant: Iberdrola S.A.
Investigador Principal: J. Colmenero, codirector P.M. Echenique
Honorarium: 10.000.000 pts.
Duration: January 1997- December 1997

Project: *“Procesos industriales y polímeros. Química del femtosegundo”*
Source of Grant: Iberdrola S.A.
Principal Researcher: J. Colmenero, codirector P.M. Echenique
Honorarium: 10.000.000 pts.
Duration: January 1998- December 1998

Project: *“Comportamiento dinámico de polímeros de ingeniería”*
Source of Grant: Iberdrola S.A.

Principal Researcher:: J. Colmenero, codirector P.M. Echenique
Honorarium: 10.000.000 pts.
Duration: January 1999- December 1999

7. MISCELLANEOUS

1. Introduction by Javier Muguerza and commentary on the closing lecture of the Third Congress of the Logic, Methodology, and Philosophy of Science Society in Spain.

7.1 LECTURES

2000

- “*Libertad y Límites de la Ciencia*”. Forum Universidad de Deusto. Bilbao. 29 February.
- “*Ciencia, Economía, Innovación*”. Museo Guggenheim. Bilbao. 29 March.
- Debate Meeting, “*New thinking for a new millenium*”. Education for the knowledge-based economy. 2-3 May.
- “*Educación, Investigación e Innovación en la Economía del Conocimiento*”. Sindicato Empresarial Alavés. Barceló Hotel, Gasteiz. June.
- “*Perspectiva de las Matemáticas*”. Universidad de Valladolid. Valladolid. 20 September.
- “*La educación en la Sociedad del Conocimiento*”. Ikastola JASO. Iruñea. 28 September.
- “*Libertad y Límites de la Ciencia*”. III Congreso de la Sociedad Vasca de Urología. Donostia. 5-7 October.
- “*Educación, Investigación e Innovación en la Economía del Conocimiento*”. Labein. Bilbao. 17 October.
- “*Lo útil de Conocer*”. FESABID. Jornadas Españolas de Documentación. Bilbao. 19 October.
- “*Innovación, Economía, Educación*”. Agencia Navarra de Innovación. Pamplona. 19 October.
- “*Libertad y Límites de la Ciencia*”. Planetarium de Pamplona. Pamplona. 15 November.
- “*La tecnología del nuevo milenio*”. Robotiker. Museo Guggenheim. Bilbao. 22 November.
- “*Libertad y Límites de la Ciencia*”. Fac. de Ciencias. Universidad de Valladolid. Valladolid. 30 November.

- “*Libertad y Límites de la Ciencia*”. 25 Aniversario Facultad de Químicas. Kutxa. Donostia. 20 December

2001

- “*Lo útil de conocer*”. Universidad de Vigo. A celebration of the thought of St. Thomas Aquinas and investiture of recipients of doctoral degrees. 25 January.
- “*Lo útil de conocer*”. Universidad de Salamanca. A celebration of the thought of St. Thomas Aquinas and investiture of recipients of doctoral degrees. 26 January.
- “*Ciencia, Economía y Sociedad*”. Ikastola Beasain (Guipuzkoa, Spain), 22 February.
- “*Ciencia y Sociedad*”. XII Jornadas de Naturaleza. Tolosa (Gipuzkoa, Spain), 26 April.
- “*Lo tangible de lo intangible*”. Casa de Cultura de Eibar. (Eibar, Gipuzkoa, Spain). 17 May.
- “*Lo Util de Conocer*”. Universidad de Coimbra (Coimbra, Portugal), 31 May.
- “*La Universidad ante el Nuevo Milenio*”. Fundación BBVA (Madrid, Spain), 14 June.
- “*Lo útil de Conocer*”. Universidad de La Laguna (Tenerife, Spain), 20 June.
- “*Ciencia, Economía y Sociedad*” Aquarium de Donostia- San Sebastián (Donostia- San Sebastián, Spain) Inauguration of the AZTI Center in Pasaia, Lecture “El Futuro de los Recursos Marinos”, 21 June.
- “*Una Educación Atractiva y Universal en la Ciencia y en la Tecnología*”, Palacio Miramar. Summer Course UPV/EHU (Donostia – San Sebastián, Spain), 5 July.
- “*Ezagutzaren Erabilgarritasuna*”, UEU (Udako Euskal Unibertsitatea), (Pamplona, Spain), 26 July.
- “*De lo simple a lo complejo en la comprensión de la materia*”, Universidad Internacional Menezdez Pelayo (Santander, Spain) 14 September.
- “*La Universidad ante el Nuevo Milenio*”, Inaugural Address on the Ocasión of the Opening of the academic Year of the Universidad de Arrasate- Mondragon, (Oñate, Spain) 19 September.
- “*De lo simple a lo complejo en el comprensión de la materia*”, Instituto de Educación Secundaria Plaza de la Cruz, Ciclo de Conferencias “Física para Motivar” (Pamplona, Spain) 3 October.
- “*De lo simple a lo complejo en el conocimiento de la materia*”, Asociación ASTINTZE 53-70, Hotel Indautxu (Bilbao, Spain) 23 de October.

- “*Lo Útil de Conocer*”, National Nursing Conference. Palacio Euskalduna (Bilbao, Spain) 24 de October.
- “*Más es Diferente. Lo pequeño también es Diferente*”. Tekniker. Eibar (Guipuzcoa) 22 November.
- “*La sociedad del conocimiento*”. Eusko Ikaskuntza. Palacio del Kursaal de San Sebastián. 28 de November.

2002

- “*Libertad y límites de la Ciencia*”. Ikastola Zangotza. Casa de Cultura de Sangüesa. 7 February.
- “*Libertad y límites de la Ciencia*”. Sociedad EL SITIO. Biderrieta Library. Bilbo. 21 de March.
- “*Ciencia. Tecnología. Futuro*”. Miramón. Presentation of the eGipuzkoa Plan. Donostia. 25 April.
- “*Ciencia. Tecnología. Creatividad. Un futuro sin fronteras*”. Euskalduna. Introduction Tecnalia. Bilbo. 8 May.
- “*Ciencia. Economía. Sociedad*”. Reunión: Física en Acción. La Coruña. 28 September.
- “*Educación y Futuro*”. 25 Ikastola Ekintza. Palacio Kursaal. Donostia. 25 October.
- “*II Jornadas de reflexiones sociales: La normalización del uso del Euskera*”. Fundación Fernando Buesa. Vitoria-Gasteiz. 19 November.
- “*Basic Science. The Future*”. Marie Curie. Palacio Kursaal. Donostia. 28 November.
- “*Ciencia. Educación. Economía*”. Escuela Profesional de Ordicia. Ordicia. 3 December.
- “*Ciencia Básica: El futuro*”. Hospital de Cruces, Osakidetza. Bilbao. 19 de December de 2002.

2003

- “*Valores y Ciencia*”. Humanismo para el siglo XXI. Universidad de Deusto. Bilbao. 4 March.
- “*Lo útil de conocer*”. Nursing Conference. Kursaal Aretoa. Donostia. 2 April.
- “*Visiones de futuro. Ciencia y Tecnología*”. Fundación Grupo Correo Prensa Española. Madrid. 9 April.

- “*La ciencia básica: El futuro*”. Summer Course of the UPV/EHU. Palacio Miramar. Donostia. 1 September.
- “*Lo útil de conocer*”. Inauguration of the Course. Faculty of Chemical Sciences UPV/EHU. Donostia. 29 September .
- “*Una educación para la creatividad: EL FUTURO*”. MIT Alumni. Madrid. 2 October.
- “*Ciencia Básica: El Futuro*”. Aniversario Osakidetza. Bilbao, 20 October.
- “*Una visión de Futuro: Ciencia y Tecnología*”. Faro de Vigo. Vigo, 19 November.
- “*Ciencia Básica: Futuro*”: Sarriko. Bilbao, 21 de November.
- “*Ciencia Básica: El Futuro*”. Euskal Jaiak de Irún. Irún, 29 November.

2004

- *”*Educación y Futuro*”. Ikastola Olabide, On the occasion of the school’s twenty-fifth anniversary. Vitoria-Gasteiz. 30 January.
- *”*Ciencia Básica: El Futuro*”. Universidad de Coimbra. Coimbra, Portugal. 5 March.
- *”*Ciencia. Tecnología. Futuro*”. Grupo Eroski Lecture. Parque Tecnológico de Miramón. Donostia- San Sebastián. 12 March.
- *”*Ciencia Básica. El Futuro*”. Universidad de Zaragoza. Zaragoza. 24 March.
- *”*Ciencia y Humanismo: La sociedad del Conocimiento*”. Cluster del Conocimiento. Donostia-San Sebastián. 23 April.
- “*Ciencia. Tecnología. Futuro*”. Farm Managers. 12 de May.
- *”*Consejos a un joven científico*”The Conference for Young Scientists. Zarauz. 7 June.
- *”*Creatividad. Ciencia Básica. Innovación*”. Orona. Palacio Kursaal. Donostia-San Sebastián. 5 July.
- *”*De lo simple a lo complejo. Tensiones en nuestra comprensión de la materia.*”. Inauguration of summer courses UPV/EHU. Palacio Miramar. Donostia-San Sebastián. 6 de July de 2004
- “*Educación Superior e Investigación*” Curso: Universidad y Calidad. política universitaria y sus efectos. Universidad de Valladolid 21 September.

- “*Ciencia Básica. El Futuro*”. Colegio Mayor Bidealde, Talk for the Course Opening 2004/2005. 28 October, Bilbao.
- “*Ciencia. Creatividad. Futuro*”. On the occasion of the twenty-fifth anniversary of the Instituto Donapea, Pamplona, 10 November.
- “*Ciencia. Tecnología. Economía*”. European Courses. Palacio Euskalduna, 17 November.
- “*Instituciones Periuniversitarias: DIPIC*”. Jornadas de Política Científica en Matemáticas. Santiago 18 November.
- “*Lifetime of electrons and holes at surfaces*”. An Encounter with Fundamental Physics in Homage to A. Galindo, Madrid, 26 November.
- “*Ciencia. Tecnología. Innovación. Sociedad*”. Inauguration of GARAIA. Mondragón, Gipuzkoa. 9 December.

2005

- “*Ciencia. Creatividad. Futuro*”. Curso Regional de Innovación Científica y Tecnológica. León, 14 February.
- Inauguration of the World Year of Physics. Congreso de los Diputados, Madrid. 11 February.
- “*Ciencia. Innovación. Creatividad*”. Instituto de Diseño. Bilbao. 15 February.
- “*Ciencia. Creatividad. Futuro*”. A talk at the Conference on technological advances in Chemistry and Physics as they are applied in society at large. Salón de Grados de la Escuela de Ingenieros. Cartagena, 11 March.
- “*De lo simple a lo complejo: Ciencia, Creatividad, Futuro*”. Universidad de La Laguna. Acto de Opening ceremony and lecture. 2005 The World year of Physics. Teachers and Alumni of the sciences\, Tenerife, 30 March.
- “*Consejos a un joven científico*”. Universidad Autónoma Metropolitana de México. Inauguration of the World Year of Physics. 7 April.
- “*Física. Creatividad. Futuro*”. Universidad Autónoma Metropolitana de México. Inauguration of the World Year of Physics.

8 April.

- “*Ciencia y Sociedad. Libertad y Límites de la Ciencia*”
XI Simposio del Instituto universitario de historia social "Valentín de Foronda"
Instituto Universitario Valentin de Foronda, Vitoria-Gasteiz.
28 June.
- “*Física. Creatividad. Futuro*”
Conference on Medical Physics 2005. Iruñea-Pamplona
29 June.
- “*La problemática del autogobierno vasco: Una mirada al futuro*”
Summer Courses UPV-EHU 2005. Research.
Palacio de Miramar, Donostia-San Sebastián
4 July.
- “*Física. Creatividad. Futuro*”
Universidad Juan Carlos. Summer Courses
CES Bldg., Aranjuez, Madrid
5 July.
- “*Física. Cultura. Creatividad. Futuro*”
Kutxaespacio de la Ciencia, Miramón
Donostia-San Sebastián
6 July.
- “*Ruta Quetzal. Ciencia. Cultura*”
Museo Guggenheim, Bilbao
29 July.
- “*Física, Creatividad, Futuro*”
Talk on the occasion of the opening of courses at the faculty of Nursing and
Medicine. UPV-EHU Donostia-San Sebastián
14 October.
- “*Consejos a un joven científico*”
Universidad Pública de Navarra.
Pamplona-Iruñea
18 October.
- “*Física. Creatividad. Futuro*”
Planetarium de Pamplona.
Pamplona-Iruñea
18 October.
- “*Advice to a young scientist*”

Universidad Autónoma de Barcelona
20 October.

- “*Física. Creatividad. Cultura*”
Real Sociedad Bascongada de los Amigos del País. Commemorative ceremony of the World year of Physics.
Vitoria-Álaba
9 November.
- “*Consejos a un joven científico*”
Open House at the Faculty of Chemistry.
Donostia-San Sebastián
10 de November de 2005.
- “*Ciencia. Cultura. Futuro*”
Science Week at the Universidad de la Rioja.
La Rioja
15 Novembe.
- “*Ciencia. Creatividad. Educación*”
Palacio Euskalduna. Docentes
Bilbao-Bilbo
18 November.
- “*Ciencia. Creatividad. Educación*”
Real Academia de la Ciencia.
Madrid
20 November.
- “*Ciencia. Economía. Creatividad.*”
Foro Álava. Delivered before an audience in the field of Industrial Distribution.
Vitoria-Gasteiz
22 November.
- “*Ciencia. Creatividad. Futuro*”
2005. World year of Physics.
Bidebarrieta Library. Bilbao-Bilbo.
29 November.
- “*Conocimiento. Información. Comportamiento.*”
Consultores BETEAN.
Bilbao-Bilbo.
30 November.

2006

- *“Ciencia. Creatividad. Futuro”*
Centro de Formación del Profesorado.
“Los días de la Educación.”
Palencia
January 25th, 2006
- *“Advice to a young scientist”*
Universidad Autónoma de Barcelona
Barcelona.
February 12th, 2006.
- *“Hezkuntza. Zientzia eta Tecnología”*
25 aniversario de Begoñazpi Ikastola.
Bilbao-Bilbo.
February 21st, 2006
- *“Lo útil de conocer”*
Aniversario ETB, Artium.
Vitoria-Gasteiz.
February 23rd, 2006
- *“Ciencia, Creatividad, Futuro”*
Jornadas Científicas: Un viaje por la materia.
IES Cangas del Narcea, Oviedo.
April 25th, 2006
- *“Ciencia, Economía y Sociedad”*.
Aula Magna del Edificio Histórico de la Universidad de Oviedo
Oviedo
April 25th, 2006
- *“Consejos a un joven científico”*
Facultad de Ciencias, Universidad de Oviedo
Oviedo.
April 26th, 2006
- *“Lo útil de conocer”*
Homenaje a Santos Sarasola. Liceo Santo Tomás
Donostia-San Sebastián
April 27th, 2006
- *“Ciencia. Tecnología. Futuro”*
Colegio Oficial de Peritos de Donostia
Donostia-San Sebastián
May 25th, 2006

- “*Consejos a un joven científico*”
Universidad de Navarra
Pamplona
May 26th, 2006
- “*Ciencia. Tecnología. Futuro*”
Un horizonte para España. Fundación La Caixa.
Madrid
June 1st, 2006
- “*Science in Spain. The view of a Cambridge PhD*”
To celebrate Claire Hall and Spain
Cambridge.
June 7th, 2006
- “*Lo útil de conocer*”
Cursos de verano.
Palacio de la Magdalena, Santander, España
August 24th, 2006
- “*Ciencia y Tecnología. Cambio y perspectivas*”
Cursos de verano 1980-2005 de la UPV/EHU
Palacio de Miramar, Donosita, España.
September 6th, 2006
- “*Ciencia. Nanotecnología. Economía*”
Simposium Universidad-Europa, Alicante, Spain
October 5th, 2006
- “*Ciencia. Tecnología y Sociedad*”
AZTERLAN, Durango
October 10th, 2006
- “*Libertad y límites de la Ciencia*”
Fundación Eusko Alkartasuna
October 19th, 2006
- “*Ciencia. Nanotecnología: lo útil de conocer*”
Baratz, Madrid
November 7th, 2006
- “*Consejos a un joven científico*”
Semana de la Ciencia. Fundación BBVA. Madrid
November 7th, 2006
- “*Ciencia. Nanotecnología y Futuro: Lo útil de conocer*”

Semana de la Ciencia. Universidad de Navarra. Pamplona
November 15th, 2006

- “*Ciencia. Sociedad. Nanotecnología y Futuro: Lo útil de conocer*”
Hospital de Txagorritxu, Vitoria-Gasteiz, España.
November 16th, 2006

- “*Ciencia. Nanotecnología y Futuro: Lo útil de conocer*”
Santiago de Compostela
November 21st, 2006

- “*Consejos a un joven científico*”
Santiago de Compostela
November 21st, 2006

- “*Ciencia, Nanotecnología y Futuro. Lo útil de conocer*”
Iberdrola, Bilbao
November 24th, 2006

- “*Ciencia Básica: el Futuro*”
Olarain, Acto de Imposición de Becas, Donostia- San Sebastián
November 25th, 2006

2007

- “*Ciencia. Tecnología. Economía. Futuro*”
Beasain, Gipuzkoa
January 25th, 2007

- “*Física. Creatividad. Futuro*”
Barcelona
February 9th, 2007

- “*Consejos a un joven científico*”
Gazte Ikertzaileen V. Jardunaldiak /V Jornadas de Jóvenes Investigadores
Escuela Técnica Superior de Ingeniería. Bilbao
February 28, 2007

- “*Física. Sormena. Etorkizuna*”
Zelaietako Auditorioa, Amorebieta, Bizkaia
March 7, 2007

- “*El futuro de la excelencia investigadora en la Universidad*”
Universidad: Investigación y relación con empresas
V. Congreso de Universidades
Facultad de Física, Universidad Castilla-La Mancha, Campus de Toledo

April 19, 2007

- “*Consejos a un joven científico*”

Universidad La Laguna, Tenerife

April 20, 2007

- “*Ciencia. Creatividad. Economía. Futuro*”

Día Mundial de la Creatividad y la Innovación

Arico, Canarias

April 21, 2007

- “*De lo grande a lo pequeño, de lo pequeño a lo grande: Nanotecnología*”

Jornadas de la Ciencia y Tecnología

IES Escultor Juan de Villanueva, Pola de Siero, Oviedo, Asturias

April 25, 2007

- “*Consejos para un joven científico*”

Facultad de Química de Oviedo

April 26, 2007

- “*Homenaje a Pedro Pascual*”

Barcelona

April 27, 2007

- “*Lo útil de conocer*”

25. Aniversario de Salud Mental Extrahospitalaria de Gipuzkoa

Hotel Amara Plaza, Donostia

June 7, 2007

- “*Zientziaren Alderdi Ederrez*”

Zio Festa 2007, Koldo Mitxelena Kultura Aretoan, Donostia

June 14, 2007

- “*Ciencia básica. El futuro*”

Cena homenaje al Sr. Garmendia

Rodisa, S.A.

Hotel María Cristina, Donostia

June 15, 2007

- “*Consejos a un joven científico*”

Ciclo Cultura con Ciencia, Vigo, Galicia

June 21, de 2007

- “*Ciencia. Cultura. Tecnología. Futuro*”

Domus de La Coruña, Galicia

June 21, 2007

- “*Ciencia básica. El futuro*”
Curso Fronteras de los nuevos materiales, Ciencia e Industria.
Fundación Centro de Ciencias de Benasque
July 9, 2007
- Curso: “*Consolider: Una ventana a la Ciencia de Frontera*”
Universidad Internacional Menéndez Pelayo, Santander
August 1, 2007
- “*Lo útil de conocer*”
Universidad Internacional Menéndez Pelayo, Santander
August 23, 2007
- “*Lo útil de conocer*”
Universidad Internacional Menéndez Pelayo, Santander
August 30, 2007
- “*CIE. Conocimiento. Innovación. Emoción (Claves para un mundo en evolución)*”
Directivos de Kutxa, Ficoba, Irún, Gipuzkoa
September 18, 2007
- “*Gestión de la Innovación y del Conocimiento*”
Master “Gestión de la Innovación y del Conocimiento”, director Alfonso Unceta
UPV/EHU, Bilbao
October 2, 2007
- “*Etorkizunaren baitan mintegia-Seminario retos emergentes*”
Encuentro-Debate con Pedro Miguel Etxenike Landiribar
Fundación DIPIC, Donostia- San Sebastián
November 8, 2007
- “*Consejos a un joven científico*”
Universidad de Valencia (ICMOL), Valencia
December 17, 2007

Año 2008

- “*Lo útil de conocer. El gran reto de lo pequeño*”
Club español de la industria, tecnología y minería
CSIC. Madrid
February 20, 2008
- “*El futuro en nuestras manos. Investigar para curar*”
Fundación Dr. Carlos Elósegui de Policlínica Gipuzkoa
Kursaal, Donostia- San Sebastián

February 21, 2008

- *“Investigar para curar. Lo útil de conocer”*
III Jornadas de Formación de la Comarca de Bilbao
Osakidetza
Museo Marítimo Ría Bilbao
June 5, 2008
- *“Lo útil de conocer. El gran reto de lo pequeño”*
X Congreso Nacional de Materiales
Universidad de Mondragón
Kursaal, Donostia-San Sebastián
June 18, 2008
- *“Lo útil de conocer. El gran reto de lo pequeño”*
Universidad Internacinoal Menéndez Pelayo
Santander
August 21, 2008
- *“El gran reto de lo pequeño”*
Programa Científico, III. Congreso Nacional de Auditoría en el Sector Público
Baluarte, Palacio de Congresos y Auditorio de Navarra, Iruña
October 1, 2008
- *“El gran reto de lo pequeño”*
Master en Innovación UPV/SPRI
UPV/EHU, Bilbao
October 7, 2008
- *“El gran reto de lo pequeño”*
Congreso ERP "Innovación Sostenida", Grupo SPYRO
Auditorio Central del Parque Tecnológico Miramon, Donostia
October 10, 2008
- *“Nanogune. El gran reto de lo pequeño”*
Presentación de Nanogune, Innobasque
November 13, 2008
- *“Ciencia. Creatividad. Futuro”*
Nazaret Zentroa
November 28, 2008
- *“Lo útil de conocer. El gran reto de lo pequeño”*
Universidad de Santiago de Compostela/Fundación Caixa Galicia
December 4, 2008

- “*Lo útil de conocer. El gran reto de lo pequeño*”
Elorrioko Txintxirri Ikastola
December 16, 2008

Año 2009

- “*Ciencia. Investigación. Creatividad. Innovación. Cultura*”
Creatividad e Innovación frente a la crisis
Museo Guggenheim, Bilbo
February 16, 2009
- “*Ciencia. Investigación. Creatividad. Innovación. Cultura*”
I Edición Encuentro Alumni 2009
Fundación Rafael Escolá
ETSIM, Madrid
February 19, 2009
- “*Gure etorkizuna: Hezkuntza, zientzia, sormena eta berrikuntza*”
ELKARGI
Bazkideen Batzar Nagusia, XX. Enpresaburu topaketa
Donostiako Kursaal Jauregia
March 26, 2009
- “*Crisis. Educación y Ciencia*”
Etorkizuna Prestatzen Ekitaldia
25. Aniversario AICE-IZEA
Museo Guggenheim
May 8, 2009
- “*Ciencia. Investigación. Creatividad. Innovación. Cultura*”. *CITIC: El palíndromo del futuro*
Universidad Internacional Menéndez Pelayo
Santander
August 27, 2009
- “*Ciencia. Creatividad. Cultura*”
Cursos de Verano de la Universidad de Cantabria
Centro Cultura Dr. Velasco
Laredo
September 3, 2009
- “*Ciencia. Creatividad. Cultura*”
6º Ciclo de Conferencias, Museu de la Tècnica de l’Empordà
Teatre Jardí de Figueres
September 17, 2009

- “*Ciencia. Investigación. Creatividad. Innovación. Cultura. CÍCIC: El palíndromo del futuro*”

Master Gestión de la Innovación y el Conocimiento
UPV/EHU, Bilbao
October 7, 2009

- “*Ciencia. Creatividad. Futuro*”

Centro de Estudios Garrigues
Biblioteca Nacional, Madrid
October 27, 2009

- “*Lo útil de conocer*”

50 aniversario Facultad de Ciencias
Universidad de Navarra
IESE Madrid
November 12, 2009

- “*Ciencia. Creatividad. Futuro*”

Edificio Politécnico, Universidad de Vigo
Ourense
November 13, 2009

- “*Ciencia. Creatividad. Futuro*”

3er Congreso Nacional de Ingeniería
Palacio Miramar, San Sebastián
November 14, 2009

- “*Ciencia. Creatividad. Cultura*”

Jornada “Extreme Computing: Innovación, Compatibilidad y sostenibilidad”
Bull, S.A.
Kursaal, San Sebastián
November 18, 2009

- “*Ciencia. Creatividad. Futuro*”

Centro Cultural Cajastur
Oviedo
November 23, 2009

- “*Ciencia. Creatividad. Futuro*”

XVIII Congreso Nacional de Auditoría – Foro de las Corporaciones
Sevilla
November 26, 2009

Año 2010

- “*Lo útil de conocer*”

Premios extraordinarios Fin de Carrera y Doctorado
Acto conmemorativo de la Festividad de Santo Tomás de Aquino
Universidad de Oviedo
Januart 28, 2010

- *“El porvenir de la ciencia”*
Charla diálogo “Ideas para los próximos 100 años”
Caja Canarias, Tenerife
April 14, 2010
- *“Lo útil de conocer. El gran reto de lo pequeño”*
I.E.S Hermanos d’Elhuyar, Logroño
May 4, 2010
- *“Lo útil de conocer”*
Colegio Mayor Loyola, Madrid
May 5, 2010
- *“Ciencia. Creatividad. Pasión”*
Universidad Complutense de Madrid
May 6, 2010
- *“La sublime utilidad de la ciencia inútil (Ciencia. Creatividad. Pasión)”*
Lecciones Kutxa
Passion for Knowledge
Palacio Kursaal, Donostia
May 13, 2010
- *“Lo útil de conocer: Ciencia. Creatividad. Pasión”*
Argia Ikastolaren 25. urteurrena, Tuter
May 21, 2010
- *“Ciencia. Creatividad Comunicación”*
ENGIdiada, Premis Manel Cifra Boada
Col.legi d’Enginyers Tècnics Industrials de Girona
June 4, 2010
- *“Ciencia. Economía. Creatividad”*
Jornades Tecnològiques per a la Protecció de Dades, DAT2010
Barcelona
June 29, 2010
- *“La sublime utilidad de la ciencia inútil”*
Homenaje al Prof. Federico García Moliner
Instituto de Ciencia de Materiales de Madrid, CSIC
Cantoblanco, Madrid

September 9, 2010

- *“Ciencia. Creatividad. Pasión. La sublime utilidad de la ciencia inútil”*

Master UPV/ EHU, Bilbao

October 6, 2010

- *“Passion for knowledge. La sublime utilidad de la ciencia inútil”*

Inauguración Curso

Universitat Ramón Llull

October 14, 2010

- *“Passion for knowledge. La sublime utilidad de la ciencia inútil”*

Ciclo de Divulgación de Caja Burgos

Museo de la Ciencia, Valladolid

October 21, 2010

- *“Hablemos de tu futuro”*

Acto de entrega de diploma a los ganadores de la XXXIV edición de los premios fin de carrera, curso 2009-2010

Kutxa

November 22, 2010

- *“Pasión por conocer. La universidad, autopista del futuro”*

2010/11 Ikasturtearen Hasiera Ekitaldia

UNED, Bergara

November 26, 2010

2011

- *“Zientziaren Hiria, Zientzia Hirian”*

Presentación pública de Estrategia 2020

Donostia

January 31, 2011

- *“Advice to a Young scientist”*

Centro Nacional de Investigaciones Oncológicas (CNIO)

Madrid

March 18, 2011

- *“The matter that matters”*

Centro Nacional de Investigaciones Oncológicas (CNIO)

Madrid

March 18, 2011

- *“Ciencia. Economía. Sociedad. Cultura”*

EUDEL

Palacio de Congresos Europa, Vitoria-Gasteiz
March 21, 2011

- *“La sublime utilidad de la ciencia inútil. (Ciencia. Creatividad. Pasión)”*
UNED Tudela
March 31, 2011

- *“La sublime utilidad de la ciencia inútil. (Ciencia. Creatividad. Cultura)”*
C. I. P. Virgen del Camino, Pamplona
May 4, 2011

- *“Libertad y límites de la Ciencia”*
Jornadas “Ciencia y mística”
Miramar Jauregia, Donostia
May 19, 2011

- *“La sublime utilidad de la ciencia inútil: Ciencia. Creatividad. Cultura”*
Foro de Auditoría del País Vasco
Bilbao
November 4, 2011

- *“Matemáticas aquí y ahora. Mesa sobre “La investigación””*
Valladolid
November 16, 2011

- *“Nanotecnología: el gran reto de lo pequeño”*
Jakinmina, Jakiunde
Bergara
November 18, 2011

- *“Máster Gestión de la Innovación y el Conocimiento”*
UPV/EHU, Bilbao
November 22, 2011

- *“La sublime utilidad de la ciencia inútil. (Ciencia. Creatividad. Cultura)”*
Cámara de comercio
Bilbao
December 16, 2011

2012

- *“Nanotecnología: Sensacionalismo o realidad”*
II. Taller Nanobusiness, Adeg
Cic nanogune
January 24, 2012

- *“Nanotecnología: El gran reto de lo pequeño. La sublime utilidad de la ciencia inútil”*

Garatu
Cic Nanogune
January 24, 2012

- *“Nanotecnología: El gran reto de lo pequeño. La sublime utilidad de la ciencia inútil”*

Colegio Mayor Ayete
Donostia
February 14, 2012

- *“Electron dynamics at surfaces and nanostructures”*

Conferencia Plenaria
NanoSpain 2012
Santander
February 28, 2012

- *“Ciencia. Economía. Cultura: La sublime utilidad de la ciencia inútil”*

Planetario Iruñea
Ciclo Hitz Hitz Celebración Aniversario Ikastola San Fermin
Iruñea
March 22, 2012

- Presentación del libro de Daniel Innerarity: *“La democracia del conocimiento”*

Agenda Festival Gutun Zuria 2012
AlhondigaBilbao
April 18, 2012