

# **DEPARTAMENTO DE FISICA**

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### **Áreas de conocimiento:**

- FISICA APLICADA

## **ÁREA DE CONOCIMIENTO: FISICA APLICADA**

### **Actividades de investigación**

#### **Tesis Doctorales**

- Classical and quantum formulations of s1 xs2 and s3 Gowdy models coupled with matter  
*Autores:* GOMEZ, D.  
*Director:* VILLASEÑOR, E. J. S.; BARBERO, J.F.  
*Año:* 2009
- Formación de barreras de transporte y transiciones de segundo orden en el borde del plasma  
*Autores:* DELGADO, J. M.  
*Director:* GARCIA, L.  
*Centro donde se presentó:* FACULTAD CIENCIAS FISICAS  
*Año:* 2009

### **Publicaciones y actividades de difusión de resultados**

#### **Publicaciones en revistas científicas internacionales**

- AGUIRRE, M.V.; MARTIN, A.; PASTOR, J.Y.; LLORCA, J.; MONGE, M. A. ; PAREJA, R.  
Mechanical Behavior of W-Y2O3 and W-Ti Alloys from 25 A degrees C to 1000 A degrees C,  
*Metallurgical and Materials Transactions A-Physical Metallurgy and Materials Science*, Vol. 40A,  
Núm. 10, 2009, pp. 2283-2290, ESTADOS UNIDOS DE AMERICA.
- AUGER, M.A.; SAVOINI, B.; LEGUEY, T.; MONGE, M. A. ; PAREJA, R. ; VICTORIA, J.  
Mechanical characteristics of porous hydroxyapatite/oxide composites produced by post-sintering hot  
isostatic pressing , *Ceramics International*, Vol. 35, Núm. 6, 2009, pp. 2373-2380.
- BARBERO, J.F.; LEWANDOWSKI, J.; VILLASEÑOR, E. J. S.  
Flux-area operator and black hole entropy, *Physical review. D, Particles, fields, gravitation, and  
cosmology*, Vol. 80, Núm. 4, 2009, ESTADOS UNIDOS DE AMERICA.
- BARBERO, J.F.; VILLASEÑOR, E. J. S.  
On the computation of black hole entropy in loop quantum gravity, *Classical and quantum gravity*,  
Vol. 26, Núm. 3, 2009, REINO UNIDO.
- CALVO, I.; CARRERAS, B.; GARCIA, L. ; PEDROSA, M.A.; HIDALGO, C.  
Zonal flows and long-distance correlations during the formation of the edge shear layer in the TJ-II  
stellarator, *Plasma physics and controlled fusion*, Vol. 51, 2009, pp. 150031-1500316, REINO  
UNIDO.
- CALVO, I.; SANCHEZ, R. ; CARRERAS, B.A.  
Fractional Levy motion through path integrals, *Journal of physics. A, Mathematical and theoretical*,  
Vol. 42, 2009, pp. 55003-, REINO UNIDO.

- CARRERAS, B.; GARCIA, L. ; DELGADO, J. M.  
Emergence and decay rate of edge plasma flow shear near a critical transition , *Plasma physics and controlled fusion*, Vol. 51, 2009, pp. 150031-1500316, REINO UNIDO.
- CASTRO, M. V. D. ; LEGUEY, T.; MUÑOZ, A.; ALL, E.  
Microstructural characterization of Y2O3 ODS-Fe-Cr model alloys , *Journal of nuclear materials*, Vol. 386, 2009, pp. 449-452, HOLANDA.
- CASTRO, M. V. D. ; LOZANO-PERIS, S.; JENKINS, M.L.  
Effects of Ion Irradiation on the Microstructure of an ODS/Fe12Cr Alloy , *MRS Symposium Proceedings*, Vol. 1125, 2009, pp. 7-19.
- CRUZ, R. M. D. L. ; KANYINDA-MALU, C.; IÑARREA, J.; CLARES, F. J. ; SANTALLA, S. N.  
The effects of embedding medium and size on optical properties of II-VI core-shell nanocrystals, *Physica status solidi. A, Applied research*, 2009, ALEMANIA.
- EDDAHBI, M.O.; MONGE, M. A. ; GARCES, G.; PAREJA, R.  
Microstructural characterization of an extruded Mg-Ni-Y-RE alloy processed by equal channel angular extrusion, *Journal of alloys and compounds*, Vol. 473, 2009, pp. 79-86, SUIZA.
- ESPOSITO, B.; MARTIN, J. R. ; GRANUCCI, G.; NOWAK, S.; GABELLIERI, L.; LAZZARO, E.; SMEULDERS, P.; MARASCHEK, M.; PAUTASSO, G.; STOBER, J.; TREUTTERER, W.; URSO, L.; VOLPE, F.; ZOHM, H.  
Disruption control on FTU and ASDEX upgrade with ECRH, *Nuclear fusion*, Vol. 49, Núm. 6, 2009.
- GARCIA, E.; GUTIERREZ, E.; MONGE, A.; RAMIREZ, R. ; DE ANDRES, P.; DE ANDRES, A.; GOMEZ, B.  
Crystal structure and charge-transport properties of N-trimethyltriindole: Novel p-type organic semiconductor single crystals, *ORGANIC ELECTRONICS*, Vol. 10, Núm. 4, 2009, pp. 643-652.
- GARCIA, L. ; CARRERAS, B.A.; CALVO, I.; LLERENA, I.  
Topological characterization of the transition from laminar regime to fully developed turbulence in the resistive pressure-gradient-driven turbulence model, *Physical review. E, Statistical, nonlinear, and soft matter physics*, Vol. 80, 2009, pp. 464101-4641011, ESTADOS UNIDOS DE AMERICA.
- IÑARREA, J.  
Interplay of DC current and microwave radiation in the magnetotransport of two-dimensional electron systems, *Physical review. B. Condensed matter and materials physics*, Vol. 80, 2009, pp. 193302-, ESTADOS UNIDOS DE AMERICA.
- IÑARREA, J.  
Interplay of dc current and microwaves in the magnetotransport of two-dimensional electron systems, *Physical review. B. Condensed matter and materials physics*, Vol. 80, Núm. 19, 2009, ESTADOS UNIDOS DE AMERICA.
- IÑARREA, J.; LOPEZ, C.; PLATERO, G.  
Tunable nuclear polarization with external stationary fields in weakly coupled double quantum dots, *Applied physics letters*, Vol. 94, Núm. 25, 2009, ESTADOS UNIDOS DE AMERICA.
- IÑARREA, J.; PLATERO, G.  
Magnetoabsorption in two-dimensional electron systems, *Applied physics letters*, Vol. 95, 2009, pp. 162106-, ESTADOS UNIDOS DE AMERICA.

- KOMORI, A.; YAMADA, H.; SAKAKIBARA, S.; KANEBO, O.; KAWAHATA, K.; MUTOH, T.; OHYABU, N.; IMAGAWA, S.; IDA, K.; NAGAYAMA, Y.; SHIMOZUMA, T.; WATANABE, K.; MITO, T.; KOBAYASHI, M.; NAGAOKA, K.; SAKAMOTO, R.; YOSHIDA, N.; OHDACHI, S.; ASHIKAWA, N.; FENG, Y.; FAKUDA, T.; IGAMI, H.; INAGAKI, S.; KASAHARA, H.; KUBO, S.; KUMAZAWA, R.; MITARAI, O.; MURAKAMI, S.; NAKAMURA, Y.; NISHIURA, M.; HINO, T.; MASUZAKI, S.; TANAKA, K.; TOI, K.; WELLER, A.; YOSHINUMA, M.; NARUSHIMA, Y.; OHNO, N.; OKAMURA, T.; TAMURA, N.; SAITO, K.; SEKI, T.; SUDO, S.; TANAKA, H.; TOKUZAWA, T.; YANAGI, N.; YOKOYAMA, M.; YOSHIMURA, Y.; AKIYAMA, T.; CHIKARAISHI, H.; CHOWDHURI, M.; EMOTO, M.; EZUMI, N.; FUNABA, H.; GARCIA, L. ; GONCHAROV, P.; GOTO, M.; ICHIGUCHI, K.; ICHIMURA, M.; IDEI, H.; IDO, T.; LIO, S.; IKEDA, K.; IRIE, M.; ISAYAMA, A.; ISHIGOOKA, T.; ISOBE, M.; ITO, T.; ITOH, K.; IWAMAE, A.; HAMAGUCHI, S.; HAMAJIMA, T.; KITAJIMA, S.; KADO, S.; KATO, D.; KATO, T.; KOBAYASHI, S.; KONDO, K.; MASAMUNE, S.; MATSUMOTO, Y.; MATSUNAMI, N.; MINAMI, T.; MICHAEL, C.; MIURA, H.; MIYAZAWA, J.; MIZUGUCHI, N.; MORISAKI, T.; MORITA, S.; MOTOJIMA, G.; MURAKAMI, I.; MUTO, S.; NAGASAKI, K.; NAKAJIMA, N.; NAKAMURA, Y.; NAKANISHI, H.; NAKANO, H.; NARIHARA, K.; NISHIMURA, A.; NISHIMURA, H.; NISHIMURA, K.; NISHIMURA, S.; NISHINO, N.; NOTAKE, T.; OBANA, T.; OGAWA, K.; OKA, Y.; OHISHI, T.; OKADA, H.; OKUNO, K.; ONO, K.; OSAKABE, M.; OSAKO, T.; OZAKI, T.; PETERSON, B.; SAKAUE, H.; SASAO, M.; SATAKE, S.; SATO, K.; SATO, M.; SHIMIZU, A.; SHIRATANI, M.; SHOJI, M.; SUGAMA, H.; SUZUKI, C.; SUZUKI, Y.; TAKAHATA, K.; TAKAHASHI, H.; TAKASE, Y.; TAKEIRI, Y.; TAKENAGA, H.; TODA, S.; TODO, Y.; TOKITANI, M.; TSUCHIYA, H.; TSUMORI, K.; URANO, H.; VESHCHEV, E.; WATANABE, F.; WATANABE, T.; WATANABE, T.; YAMADA, I.; YAMADA, S.; YAMAGISHI, O.; YAMAGUCHI, S.; YOSHIMURA, S.; YOSHINAGA, T.; MOTOJIMA, O.  
Development of net-current free heliotron plasmas in the Large Helical Device, *Nuclear fusion*, Vol. 49, Núm. 10, 2009.
- LEGUEY, T.; ORTEGA, Y.; MONGE, M. A. ; CASTRO, M. V. D. ; ALL, E.  
Void formation in ODS EUROFER produced by hot isostatic pressing, *Journal of nuclear materials*, Vol. 386, 2009, pp. 462-465, HOLANDA.
- LOZANO-PEREZ, S.; CASTRO, M. V. D. ; NICHOLLS, R.  
Achieving Sub-Nanometre Particle Mapping with Energy-Filtered TEM, *Ultramicroscopy*, Vol. 109, 2009, pp. 1217-1228, HOLANDA.
- MADRIGAL, J.; HERNANDO, C.; GUIJARRO, M.; DIEZ, C.; MARINO, E.; de CASTRO, A.J.  
Evaluation of Forest Fuel Flammability and Combustion Properties with an Adapted Mass Loss Calorimeter Device, *JOURNAL OF FIRE SCIENCES*, Vol. 27, 2009, pp. 323-342.
- MARQUIS, E.; HYDE, J.M.; SAXEY, D.W.; LOZANO-PEREZ, S.; CASTRO, M. V. D. ; HUDSON, D.; WILLIAMS, C.; HUMPHRY-BAKER, S.; SMITH, G.D.W.  
Atomic-Scale Characterisation of Nuclear Reactor Materials, *Materials today*, Vol. 12-11, 2009, pp. 30-38, ESTADOS UNIDOS DE AMERICA.
- MARQUIS, E.; LOZANO-PEREZ, S.; CASTRO, M. V. D.  
Grain Boundary Chemistry before and after Ion Implantation in ODS Steels, *Microscopy and microanalysis*, Vol. 15 SUPPL 2, 2009, pp. 270-271, ESTADOS UNIDOS DE AMERICA.
- MONGE, M. A. ; AUGER, M.A.; LEGUEY, T.; ORTEGA, Y.; BOLZONI, L.; GORDO, E. ; PAREJA, R.  
Characterization of Novel W Alloys Produced by HIP , *Journal of nuclear materials*, Vol. 386-388, 2009, pp. 613-617, HOLANDA.
- MUÑOZ, A.; ALONSO, J.A.; MARTINEZ, M.J.; FERNANDEZ , M.T.  
On the magnetic structure of DyNiO<sub>3</sub>, *Journal of Solid State Chemistry*, Vol. 182, Núm. 7, 2009, pp. 1982-1989, ESTADOS UNIDOS DE AMERICA.

- MUÑOZ SANTIUSTE, J. E. ; RODRIGUEZ , U.; GONZALEZ, J.; LAVIN, V.  
Structural study of the Eu<sup>3+</sup> environments in fluorozirconate glasses: Role of the temperature-induced and the pressure-induced phase transition processes in the development of a rare earth's local structure model, *The Journal of chemical physics*, Vol. 130, Núm. 15, 2009, ESTADOS UNIDOS DE AMERICA.
  
- ODETTE, G.; CUNNINGHAM, N.; MARQUIS, E.; LOZANO-PEREZ, S.; CASTRO, M. V. D. ; HOSEMANN, P.; STERGAR, E.; LIU, S.; SEGRE, C.  
Atom-probe Tomography, Small Angle Neutron Scattering, Transmission Electron Microscopy, Positron Annihilation Spectroscopy and X-ray Absorption Spectroscopy Characterization of Nano-scale Features in Nanostructured Ferritic Alloys, *Microscopy and microanalysis*, Vol. 15 SUP2, 2009, pp. 244-245, ESTADOS UNIDOS DE AMERICA.
  
- RODRIGUEZ, A.; MORANA, B.; SANGRADOR, J.; RODRIGUEZ, T.; KLING, A.; ORTIZ, M.I.; BALLESTEROS, C. I.  
Formation of Ge nanocrystals and evolution of the oxide matrix in as-deposited and annealed LPCVD SiGeO films , *Superlattices and microstructures* , Núm. 45, 2009, pp. 343-348, REINO UNIDO.
  
- RODRIGUEZ, J.; SANTALLA, S. N. ; PUSHPA, R.  
Reconstruction of the second layer of Ag on Pt(111): Extended Frenkel-Kontorova model, *Physical review. B. Condensed matter and materials physics*, Vol. 79, Núm. 8, 2009, ESTADOS UNIDOS DE AMERICA.
  
- SALMI, G.J.; MONGE, M. A.  
Influence of yttria additions on the oxidation behaviour of titanium prepared by powder metallurgy, *Scripta Materialia*, Vol. 60, Núm. 11, 2009, pp. 1008-1011, REINO UNIDO.
  
- SANCHEZ, J.; ACEDO, M.; ALONSO, A.; ALONSO, J.; ALVAREZ, P.; ASCASIBAR, E.; BACIERO, A.; BALBIN, R.; BARRERA, L.; BLANCO, E.; BOTIJA, J.; DE BUSTOS, A.; DE LA CAL, E.; CALVO, I.; CAPPA, A.; CARMONA, J.M.; CARRALERO, D.; CARRASCO, R.; CARRERAS, B.A.; CASTEJON, F.; CASTRO, R.; CATALAN, G.; CHMYGA, A.A.; CHAMORRO, M.; ELISEEV, L.; ESTEBAN, L.; ESTRADA, T.; FERNANDEZ, A.; FERNANDEZ, R.; FERREIRA, J.A.; FONTDECABA, J.M.; FUENTES, C.; GARCIA, L. ; GARCIA, M.I.; GARCIA, R.; GARCIA, J.M.; GUASP, J.; GUIMARAIS, L.; HAPPEL, T.; HERNANZ, J.; HIDALGO, C.; JIMENEZ, J.A.; JIMENEZ, A.; JIMENEZ, R.; JIMENEZ, D.; KIRPITCHEV, I.; KOMAROV, A.D.; KOZACHOK, A.S.; KRUPNIK, L.; LAPAYESE, F.; LINIERS, M.; LOPEZ, D.; LOPEZ, A.; LOPEZ, J.; LOPEZ, A.; LYSENKO, S.; MARCON, G.; MARTIN, F.; MAURIN, V.; MCCARTHY, K.J.; MEDINA, F.; MEDRANO, M.; MELNIKOV, A.V.; MENDEZ, P.; VAN MILLIGEN, B.; MIRONES, E.; NEDZELSKIY, I.S.; OCHANDO, M.; OLIVARES, J.; DE PABLOS, J.L.; PACIOS, L.; PASTOR, I.; PEDROSA, M.A.; DE LA PENA, A.; PEREIRA, A.; PEREZ, G.; PEREZ, D.; PETROV, A.; PETROV, S.; PORTAS, A.; PRETTY, D.; RAPISARDA, D.; RATTA, G.; REYNOLDS, J.M.; RINCON, E.; RIOS, L.; RODRIGUEZ, C.; ROMERO, J.A.; ROS, A.; SALAS, A.; SANCHEZ, M.; SANCHEZ, E.; SANCHEZ, E.; SARKSIAN, K.; SEBASTIAN, J.A.; SILVA, C.; SCHCHEPETOV, S.; SKVORTSOVA, N.; SOLANO, E.R.; SOLETO, A.; TABARES, F.; TAFALLA, D.; TARANCON, A.; TASCHEV, Y.; TERA, J.; TOLKACHEV, A.; TRIBALDOS, V.; VARGAS, V.I.; VEGA, J.; VELASCO, G.; VELASCO, J.L.; WEBER, M.; WOLFERS, G.; ZURRO, B.  
Confinement transitions in TJ-II under Li-coated wall conditions, *Nuclear fusion*, Vol. 49, Núm. 10, 2009.
  
- SANCHEZ, R. ; NEWMAN, D.E.; LEBOEUF, J.N.; DECYK, V.K.; CARRERAS, B.A.  
On the nature of transport across sheared poloidal, zonal flows in electrostatic, toroidal gyrokinetic tokamak turbulence, *Physics of plasmas*, Vol. 16, 2009, ESTADOS UNIDOS DE AMERICA.

- SANTALLA, S. N. ; KANYINDA-MALU, C.; CRUZ, R. M. D. L.  
Variational method applied to determine the lattice parameter profiles in semiconductor heterostructures, *Physica E: Low-dimensional Systems and Nanostructures*, Vol. 41, Núm. 8, 2009, pp. 1604-1610, HOLANDA.
  
- SANTALLA, S.N.; KANYINDA-MALU, C.; CRUZ, R. M. D. L.  
the effects of embedding medium and size on optical properties of II-VI core-shell nanocrystals, *Physica status solidi. A, Applied research*, 2009, ALEMANIA.
  
- TRIBALDOS, V.; SANCHEZ, J.; ACEDO, M.; ALONSO, A.; ALONSO, J.; ALVAREZ, P.; ASCASIBAR, E.; BACIERO, A.; DE BUSTOS, A.; DE LA CAL, E.; CALVO, I.; CAPPA, A.; CARMONA, J.M.; CARRALERO, D.; CARRASCO, R.; CATALAN, G.; CHMYGA, A.A.; CHAMORRO, M.; ELISEEV, L.; ESTEBAN, L.; GARCIA, L. ; ALL, E.  
Confinement transitions in TJ-II under Li-coated wall condition , *Nuclear fusion*, Vol. 49, Núm. 10, 2009, pp. 104018-104028.
  
- TUCCILLO, A.A.; BIN, W.; BOTRUGNO, A.; BRACCO, G.; BRIGUGLIO, S.; BRUSCHI, A.; BURATTI, P.; CALABRO, G.; CARDINALI, A.; CASTALDO, C.; CENTIOLI, C.; ALESKSEYEV, A.; CESARIO, R.; CHEN, L.; CIRANT, S.; COCILOVO, V.; CRISANTI, F.; DE ANGELIS, R.; DE ANGELIS, U.; DI MATTEO, L.; DI TROIA, C.; ESPOSITO, B.; ANGELINI, B.; FOGACCIA, G.; FRIGIONE, D.; GABELLIERI, D.; GANDINI, F.; GIOVANNOZZI, E.; GRANUCCI, G.; GRAVANTI, F.; GROSSETTI, G.; GROSSO, G.; IANNONE, F.; ANNIBALDI, S.V.; KROEGLER, H.; LAZAREV, V.; LAZZARO, E.; LYUBLINSKI, I.E.; MADDALUNO, G.; MARINUCCI, M.; MAROCCO, D.; MARTIN, J. R. ; MAZZITELLI, G.; MAZZOTTA, C.; APICELLA, M.L.; MELLERA, V.; MIRIZZI, F.; MIRNOV, S.; MONARI, G.; MORO, A.; MUZZINI, V.; ORSITTO, F.P.; PANACCIONE, L.; PACELLA, D.; PANELLA, M.; PEGORARO, F.; PERICOLI, V.; PODDA, S.; RATYNSKAIA, S.; RAVERA, G.; ROMANO, A.; RUFOLINI, A.; SIMONETTO, A.; SMEULDERS, P.; SOZZI, C.; BARBATO, E.; STERNINI, E.; TILIA, B.; TUDISCO, O.; VERTKOV, A.; VITALE, V.; VLAD, G.; ZAGORSKI, R.; ZONCA, F.; BERTOCCHI, A.; BIANCALANI, A.  
Overview of JET results , *Nuclear fusion*, Vol. 49, Núm. 10, 2009, pp. 104013-.
  
- WATKINS, N.W.; CREDSIGNTON, D.; SANCHEZ, R. ; ROSENBERG, S.; CHAPMAN, S.C.  
Kinetic equation of lienar fractional stable motion and application to the modelling of the scalling of intermittent bursts, *Physical review. E, Statistical, nonlinear, and soft matter physics*, Vol. 79, 2009, ESTADOS UNIDOS DE AMERICA.

## Libros

- BRIZ, S.; BARRANCOS, J.; NOLASCO, D.; MELIAN, G.; PADRON, E.; PEREZ, N.  
New Method for Estimating Greenhouse Gas Emissions from Livestock Buildings Using Open-Path FTIR Spectroscopy , *SPIE--The International Society for Optical Engineering*, 2009.
  
- BRIZ, S.; UGARTE, M.; DURAN, L.; RODRIGUEZ, R.M.; DE LA SERA, M.; GALI, R.; PICABEA, C.; FERNANDEZ, I.; DE CASTRO GONZALEZ, A.J.  
Metodología y sistema de medida para el cálculo experimental de las emisiones contaminantes asociadas al tráfico rodado, *VII Convención Internacional sobre Medio Ambiente y Desarrollo*, CUBA, 2009.

## Colaboraciones en obras colectivas

- ARANDA, J. M. ; de CASTRO, A.J. ; MELENDEZ, J. ; CORTES, F.; FERNANDEZ, I.; LOPEZ, F.  
*The design of an infrared sensor for the measurement of Martian surface temperature and gas concentration*, en: Proceedings of the 2009 Spanish Conference on Electron Devices, CRC Press & IEEE, ESTADOS UNIDOS DE AMERICA, pp. 301-304, 2009.
- GARCIA, E.; GALVAN, I.M.; de CASTRO, A.J.  
*Discriminant regression analysis to find homogeneous structures*, en: Lecture Notes in Computer Science, SPRINGER VERLAG, ALEMANIA, pp. 191-199, 2009.
- GARCIA, E.; GALVAN, I.M.; de CASTRO, A.J.  
*Supervised clustering via Principal Component Analysis in a retrieval application*, en: Proceedings of the Third International Workshop on Knowledge Discovery from Sensor Data, Association for computer Machinery (ACM), ESTADOS UNIDOS DE AMERICA, pp. 97-104, 2009.
- IÑARREA, J.; LOPEZ-MONIS, C.; PLATERO, G.; SANCHEZ, R.  
*Spin dynamics in double quantum dots*, en: Progress in Industrial Mathematics at ECMI 2008. Mathematics in Industry, 2009.
- IÑARREA, J.; PLATERO, G.  
*Effect of Microwave radiation on Weiss oscillations: creation and destruction of zero resistance states*, en: Proceedings of the 29th International Conference on the Physics of Semiconductors, pp. 167-, 2009.
- IÑARREA, J.; PLATERO, G.  
*Quenching of Microwave-induced resistance oscillations in Hall bars: role of frequency and temperature*, en: Proceedings of the 29th International Conference on the Physics of Semiconductors, pp. 225-, 2009.

## Documentos de trabajo

- MONGE, M. A. ; LEGUEY, T.; AUGER, M.A.; SAVOINI, B.; PAREJA, R. ; MUÑOZ, A.; EDDAHBI, M.O.  
Informe técnico sobre la creación, dotación y funcionamiento del Laboratorio de Producción y Procesado de Materiales, 2009.

## Ponencias y Comunicaciones a congresos

- ARANDA, J. M. ; de CASTRO, A.J. ; MELENDEZ, J. ; CORTES, F.; FERNANDEZ, I.; LOPEZ, F.  
*The Design of an Infrared Sensor for the Measurement of Martian Surface Temperature and Gas Concentration*; en: Spanish Conference on Electron Devices, 2009. CDE 2009, , 2009.
- AUGER, M.A.  
*Propiedades Mecánicas de Composites Porosos de Hidroxiapatita Preparados Mediante Compactación Isostática a Altas Temperaturas*, XXXII Reunión Bienal de la Real Sociedad Española de Física, CIUDAD REAL, ESPAÑA, 2009.
- AUGER, M.A.; LEGUEY, T.; MUÑOZ, A.; MONGE, M. A. ; CASTRO, M. V. D. ; FERNANDEZ, P.; GARCES, G.; PAREJA, R.  
*Microstructure and Mechanical Properties of Ultrafine-Grained ODS and non-ODS Fe-14Cr Model Alloys* , 14th International Conference on Fusion Reactor Materials (ICFMR-14), Sapporo, JAPON, 2009.



- AUGER, M.A.; SAVOINI, B.; LEGUEY, T.; MONGE, M. A. ; MUÑOZ, A.; PAREJA, R. ; VICTORIA, J.  
*Propiedades mecánicas de composites porosos de Hidroxiapatita preparados mediante compactación isostática a altas temperaturas*; en: ACTAS DE LA XXXII REUNIÓN BIENAL DE FÍSICA. Simposio de Física del Estado Sólido, 2009.
- AUGER, M.A.; TARDIO, M. M. ; PAREJA, R. ; VICTORIA, J.  
*Caracterización dieléctrica de composites basados en hidroxiapatita* , IX Reunión Nacional de Electrocerámica (EC09), LEGANES, ESPAÑA, 2009.
- BRIZ, S.; BARRANCOS, J.; NOLASCO, D.; MELIAN, G.; PADRON, E.; PEREZ, N.  
*New Method for Estimating Greenhouse Gas Emissions from Livestock Buildings Using Open-Path FTIR Spectroscopy*; en: Remote Sensing of Clouds and the Atmosphere XI, 2009.
- BRIZ, S.; UGARTE, M.; DURAN, L.; RODRIGUEZ, R.M.; DE LA SERNA, M.; GALI, R.; PICABEA, C.; FERNANDEZ, I.; DE CASTRO GONZALEZ, A.J.  
*Metodología y sistema de medida para el cálculo experimental de las emisiones contaminantes asociadas al tráfico rodado* , IV Congreso de Gestión Ambiental, LA HABANA, CUBA, 2009.
- CALVO, I.; CARRERAS, B.; GARCIA, L. ; PEDROSA, M.A.; HIDALGO, C.  
*Zonal flow-based interpretation of long-distance correlations in the edge shear layer of TJ-II*, 36th European Conference on Controlled Fusion and Plasma Physics , SOFIA, BULGARIA, 2009.
- CASTRO, M. V. D.  
*Microstructural Characterization of Irradiated ODS and Fe-Cr alloys*, The Minerals, Metals and Materials Society Conference (TMS), ESPAÑA, 2009.
- CASTRO, M. V. D. ; LEGUEY, T.; AUGER, M.A.; LOZANO-PEREZ, S.; L, M.  
*Analytical Characterization of Secondary Phases and Void Distributions in an Ultrafine-grained ODS Fe-14Cr Model Alloy*; en: Journal of Nuclear Materials, (doi:10.1016/j.jnucmat.2010.12.067), 2009.
- CASTRO, M. V. D. ; LEGUEY, T.; AUGER, M.A.; MARQUIS, E.; LOZANO-PEREZ, S.; JENKINS, M.L.  
*High Resolution Analytical Characterization of Nanodispersoids in ultrafine-grained ODS Fe-14Cr Model Alloys* , ICFM14, SAPPORO, JAPON, 2009.
- CASTRO, M. V. D. ; LOZANO-PEREZ, S.; MARQUIS, E.; JENKINS, M.L.  
*Microstructural Characterization of Irradiated ODS and Fe-Cr alloys*, The Minerals, Metals and Materials Society Conference (TMS), SAN FRANCISCO, ESTADOS UNIDOS DE AMERICA, 2009.
- CASTRO, M. V. D. ; LOZANO-PEREZ, S.; MARQUIS, E.; JENKINS, M.L.  
*Stability of Nanoparticles in an Oxide Dispersion Strengthened Alloy* , EMAG 2009, SHEFFIELD, REINO UNIDO, 2009.
- CASTRO, M. V. D. ; MARQUIS, E.; LOZANO-PEREZ, S.; JENKINS, M.L.  
*High Resolution Microanalysis of ODS Steels*, ICFM14, SAPPORO, JAPON, 2009.
- CORTES, F.; ARANDA, J. M. ; SANCHEZ-REILLO, R.; MELENDEZ, J. ; LOPEZ, F.  
*Spectral Selection for a Biometric Recognition System based on Hand Veins Detection through Image Spectrometry* ; en: Proceedings of the Special Interest Group on Biometrics and Electronic Signatures , (Proceedings of the Special Interest Group on Biometrics and Electronic Signatures (pp. 81-92)), ALEMANIA, 2009.
- FERNANDEZ, P.; LAPEÑA, J.; EDDAHBI, M.O.; AUGER, M.A.; LEGUEY, T.; MONGE, M. A. ; PAREJA, R.

*Microstructural and Mechanical Characteristics of EUROFER 97 Processed by ECAP*, 14th International Conference on Fusion Reactor Materials (ICFMR-14), Sapporo, JAPON, 2009.

- FUENTES, M.L.; CAMPOS, M. ; COLERA, I.  
*Improvement of sintered steels properties by microalloying and grain size decrease*; en: Proceedings de International Powder Metallurgy Congress & Exhibition (EURO PM'09), 2009.
- GARCIA, E.; GALVAN, I. M. ; DE CASTRO, A.  
*Supervised clustering via principal component analysis in a retrieval application*; en: Proceedings of the Third International Workshop on Knowledge Discovery from Sensor Data, ACM, 2009.
- GARCIA, E.; GALVAN, I. M. ; DE CASTRO GONZALEZ, A.J.  
*Discriminant Regression Analysis to Find Homogeneous Structures*; en: Proceedings. Lecture Notes in Computer Science, pp 191-199 Springer 2009, Burgos, Spain September, 2009, , 2009.
- GUZMAN, R.; MELENDEZ, J. ; ARANDA, J. M. ; LOPEZ, F. ; PEREZ, J. L.  
*On the infrared thermography application to dynamic industrial processes*, Workshop 2009 on theoretical and experimental approaches for dynamic industrial processes, LEGANES, ESPAÑA, 2009.
- IÑARREA, J.; PLATERO, G.  
*Role of an in-plane magnetic field in 2D magnetotransport assisted by microwaves* , 18th International Conference on Electronic Properties of Two-dimensional Systems and 14 th International Conference on Modulated Semiconductor Structures., KOBE, JAPON, 2009.
- IÑARREA, J.; PLATERO, G.  
*Magnetotransport excited by linearly polarized radiation in 2D electron systems*, Optics of Excitons in confined systems, MADRID, ESPAÑA, 2009.
- LEGUEY, T.  
*Developing radiation resistant ODS Fe model alloys* , 1st FEMAS workshop, LISBOA, PORTUGAL, 2009.
- LEGUEY, T.; MUÑOZ, A.; MONGE, M. A. ; SAVOINI, B.; AUGER, M.A.; PAREJA, R.  
*Powder Metallurgy Development of Fusion Structural Materials* , 1st Workshop on Fusion Energy Materials Science-FEMaS, Lisboa, PORTUGAL, 2009.
- LOPEZ-MONIS, C.; DOMINGUEZ, F.; IÑARREA, J.; PLATERO, G.  
*Spin dynamics in Double Quantum Dots: role of Hyperfine Interaction* , XXXII Reunión bienal de la Real Sociedad Española de Física. Simposio de Física del Estado Sólido, CIUDAD REAL, ESPAÑA, 2009.
- LOPEZ-MONIS, C.; IÑARREA, J.; PLATERO, G.  
*Magnetotransport through double quantum dots: dynamical nuclear polarization induced by Hyperfine interaction*. SPINTECH V , International conference on Spintronics and Quantum Information Technology, CRACOVIA, POLONIA, 2009.
- MARQUIS, E.; LOZANO-PEREZ, S.; CASTRO, M. V. D.  
*Irradiation effects on grain boundary chemistry in ODS Fe-12wt.%Cr alloys* , Microscopy and Microanalysis 2009, RICHMOND VIRGINIA, ESTADOS UNIDOS DE AMERICA, 2009.
- MUÑOZ, A.; MONGE, M. A. ; SAVOINI, B.; RABANAL, M.E.; GARCES, G.; PAREJA, R.  
*La2O3-reinforced W and W-V alloys produced by hot isostatic pressing* , 14th International Conference on Fusion Reactor Materials (ICFRM-14), SAPPORO, JAPON, 2009.
- MUÑOZ, A.; MONGE, M.A.; SAVOINI, B.; RABANAL, M. E. ; GARCES, G.; PAREJA, R. ; AUGER, M.A.

*La2O3-reinforced W and W-V Alloys Produced by Hot Isostatic Pressing*, 14th International Conference on Fusion Reactor Materials (ICFMR-14), *SAPPORO*, JAPON, 2009.

- NEWMAN, D.E.; SANCHEZ, R. ; LEBOEUF, J.N.; DECYK, V.K.  
*Mechanisms for nondiffusive transport across sheared flows in ITG turbulence*, 36th EPS Conference of Plasma Physics, *Sofia*, BULGARIA, 2009.
- NICHOLLS, R.J.; LOZANO-PEREZ, S.; CASTRO, M. V. D.  
*Understanding the features in the low-loss Y&shy;2O3 EELS spectrum* , EMAG 2009, *SHEFFIELD*, REINO UNIDO, 2009.
- ODETTE, G.; CUNNINGHAM, N.J.; MARQUIS, E.; LOZANO-PEREZ, S.; CASTRO, M. V. D. ; HOSEMANN, P.; STERGAR, E.; LIU, S.; SEGRE, C.  
*Atom-probe Tomography, Small Angle Neutron Scattering, Transmission Electron Microscopy, Positron Annihilation Spectroscopy and X-ray Absorption Spectroscopy Characterization of Nano-scale Features in Nanostructured Ferritic Alloys* , Microscopy and Microanalysis 2009, *RICHMOND VIRGINIA*, ESTADOS UNIDOS DE AMERICA, 2009.
- PARENTE, P.; BURGOS, O.; AUGER, M.A.; MONGE, M. A. ; SANCHEZ, A.J.  
*Water Based Processing of Nano Y2O3 Dispersed Hydroxyapatite Composites* , Fourth International Conference on Shaping of Advanced Ceramics (SHAPING 4), *MADRID*, ESPAÑA, 2009.
- PARENTE, P.; ORTEGA, Y.; MONGE, M. A. ; TUCCI, A.; ESPOSITO, L.; SAVOINI, B.; SÁNCHEZ-HERENCIA, A.J.  
*Investigation of tensile and compressive stresses in Al2O3 layers by Positron Annihilation Spectroscopy (PAS)* , XI Congreso internacional de la European Ceramic Society, *CRACOVIA*, POLONIA, 2009.
- RODRIGUEZ, A.; MORANA, B.; SANGRADOR, J.; RODRIGUEZ, T.; KLING, A.; ORTIZ, M.I.; BALLESTEROS, C. I.  
*Formation of Ge nanocrystals and evolution of the oxide matrix in as-deposited and annealed LPCVD SiGeO films* , 9th International Workshop on Beam Injection Assessment of Microstructure in Semiconductors *TOLEDO*, ESPAÑA, 2009.
- SANCHEZ, R. ; NEWMAN, D.E.; LEBOEUF, J.N.; DECYK, V.K.  
*Mechanisms for subdiffusion across zonal flows in gyrokinetic simulations of ITG turbulence*, *Atlanta*, ESTADOS UNIDOS DE AMERICA, 2009.
- SANCHEZ, R. ; NEWMAN, D.E.; LEBOEUF, J.N.; DECYK, V.K.; CARRERAS, B.A.  
*Understanding the mechanisms of subdiffusion across poloidal zonal flows in gyrokinetic simulations of ITG turbulence*, US Task Transport Force (TTF) Meeting, *San Diego*, ESTADOS UNIDOS DE AMERICA, 2009.

## **Actividades de formación y movilidad de personal investigador**

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