



Matemática Aplicada

Áreas de conocimiento: Matemática Aplicada

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Profesorado: CU: 9, PTU: 33, PTEU: 1, PDI Contratado y Otros: 9.

Tesis leídas

- RESOLUCIÓN NUMÉRICA DE ECUACIONES INTEGRALES E INTEGRO-DIFERENCIALES DE FREDHOLM

Doctoranda: Dña. María Victoria Fernández Muñoz

Directores: Dña. Ana Isabel Garralda Guillem y D. Manuel Ruiz Galán

Fecha de lectura: 22 de junio de 2015

Grupos de Investigación.

FQM316 ECUACIONES DE EVOLUCIÓN EN DERIVADAS PARCIALES

- Responsable: JUAN SEGUNDO SOLER VIZCAÍNO

FQM183 ECUACIONES DIFERENCIALES

- Responsable: PEDRO JOSÉ TORRES VILLARROYA

FQM191 MATEMÁTICA APLICADA

- Responsable: VICTORIANO RAMÍREZ GONZÁLEZ

Dirección y participación en Proyectos I+D

- 2014 PROPIEDADES ELECTRÓNICAS DEL GRAFENO CON APLICACIONES EN DISPOSITIVOS Y BIOTECNOLÓGICAS, Proyectos de excelencia JUNTA DE ANDALUCÍA, 30/01/2014-30/01/2017

Investigador/a TORRES VILLARROYA, PEDRO JOSÉ

- 2014 Modelado matemático de sistemas complejos en Ciencias de la Vida: de la dinámica tumoral al comportamiento colectivo de especies (BIOMAT), Proyecto de excelencia de la Junta de Andalucía, 01/01/2014-31/12/2017

SÁNCHEZ ROMERO, ÓSCAR

- 2014 Altitude control based in a Star Tracker and Earth's magnetic field measurement instrument in the Bexus ESA stratospheric balloon, Genil: Start-up Projects for Young Researchers, 01/04/2014-31/01/2015

Investigador/a IBÁÑEZ PÉREZ, MARÍA JOSÉ

Investigador/a BARRERA ROSILLO, DOMINGO

Publicaciones en revistas

- 2015 Artículo: A proposed method based on approximation and interpolation for determining climatic zones and its effect on energy demand and CO2 emissions from buildings, Energy and Buildings, , 87, 253-264

RODRÍGUEZ GONZÁLEZ, MIGUEL LUIS

- 2015 Artículo: Filling holes with shape preserving conditions, MATHEMATICS AND COMPUTERS IN SIMULATION, , , -

FORTES ESCALONA, MIGUEL ÁNGEL

GONZÁLEZ RODELAS, PEDRO

PASADAS FERNANDEZ, MIGUEL

- 2015 Artículo: From invasion to latency: Intracellular noise as a key controlling factor of competition between resource-limited cellular populations, Journal of Mathematical Biology, , , -

GUERRERO CONTRERAS, MARÍA PILAR

- 2015 Artículo: Stochastic multiscale models of cell populations: Asymptotic and numerical methods, Mathematical Modelling of Natural Phenomena, 10, 1, 64-93

GUERRERO CONTRERAS, MARÍA PILAR

- 2014 Artículo: Proposal of a New Global Model of Consistency: Application in Two-Lane Rural Highways in Spain, Journal of transportation engineering, 140, 3, 04013015-1-04013015-5

PASADAS FERNANDEZ, MIGUEL

- 2014 Artículo: A comprehensive characterization of the threshold voltage extraction in MOSFETs transistors based on smoothing splines, MATHEMATICS AND COMPUTERS IN SIMULATION, 102, , 1-10

IBÁÑEZ PÉREZ, MARÍA JOSÉ

- 2014 Artículo: Mathematical formulation and preliminary testing of a spline approximation algorithm for the extraction of road alignments, MATHEMATICS AND COMPUTERS IN SIMULATION, 47, , 1-9

PASADAS FERNANDEZ, MIGUEL

- 2014 Artículo: On a dispersive model for the unzipping of double-stranded DNA molecules, Mathematical models and methods in applied sciences, 24, 3, 495-511



- CALVO YAGÜE, JUAN
NIETO MUÑOZ, JUAN JOSÉ
SOLER VIZCAÍNO, JUAN SEGUNDO
- 2014 Artículo: A wavefunction description of quantum Fokker-Planck dissipation: derivation and numerical approximation of transient dynamics, *Journal of physics. A, Mathematical and theoretical (Print)*, 47, , 035303-
GUERRERO CONTRERAS, MARÍA PILAR
LÓPEZ FERNÁNDEZ, JOSÉ LUIS
MONTEJO GÁMEZ, JESÚS
 - 2014 Artículo: Mesoscopic and continuum modelling of angiogenesis, *Journal of mathematical biology (Print)*, , , -
GUERRERO CONTRERAS, MARÍA PILAR
 - 2014 Artículo: Beyond blow-up in excitatory integrate and fire neuronal networks: Refractory period and spontaneous activity, *Journal of theoretical biology*, , 350, 81-89
CÁCERES GRANADOS, MARÍA JOSÉ
 - 2014 Artículo: A parallel deterministic solver for the Schrödinger-Poisson-Boltzmann system in ultra-short DG-MOSFETs: Comparison with Monte-Carlo, *Computers and Mathematics with Applications*, 67, , 1703-1721
CÁCERES GRANADOS, MARÍA JOSÉ
 - 2014 Artículo: Improved duality estimates and applications to reaction-diffusion equations, *Communications in partial differential equations*, 39, 6, 1185-1204
CAÑIZO RINCÓN, JOSÉ ALFREDO
 - 2014 Artículo: On the multiscale modeling of vehicular traffic: from kinetic to hydrodynamics, *Discrete and Continuous Dynamical Systems. Series B. A Journal Bridging Mathematics and Sciences*, 19, 7, 1869-1888
BELLOMO , NICOLA
NIETO MUÑOZ, JUAN JOSÉ
SOLER VIZCAÍNO, JUAN SEGUNDO
 - 2014 Artículo en prensa: Ground states of self-gravitating elastic bodies, *Calculus of variations and partial differential equations*, , , -
CALOGERO , SIMONE CARMELO
 - 2014 Artículo en prensa: The variational spline method for solving Troesch's problem, *Journal of Mathematical Chemistry* , Springer, , , -
KOUIBIA KRICHI, ABDELOUAHED
PASADAS FERNANDEZ, MIGUEL
 - 2014 Artículo en prensa: Interpolating minimal energy C1-Surfaces on Powell-Sabin Triangulations: Application to the resolution of elliptic problems, *Numerical methods for partial differential equations (Print)*, , , -
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 - 2014 Artículo en prensa: Interpolating Minimal Energy C1-Surfaces on Powell-Sabin Triangulations: Application to the Resolution of Elliptic Problems, *Numerical Methods for Partial Differential Equations*, , , 1-24
FORTES ESCALONA, MIGUEL ÁNGEL
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 - 2014 Artículo: A hole filling method for explicit and parametric surfaces by using C1-Powell Sabin splines, *MATHEMATICS AND COMPUTERS IN SIMULATION*, 99, , 71-81
FORTES ESCALONA, MIGUEL ÁNGEL
GONZÁLEZ RODELAS, PEDRO
PASADAS FERNANDEZ, MIGUEL
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 - 2014 Artículo: Approximation of vector fields using discrete div-rot variational splines in a finite element space, *JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS*, 255, , 778-788
KOUIBIA KRICHI, ABDELOUAHED
PASADAS FERNANDEZ, MIGUEL
 - 2014 Artículo: Optimization of the parameters of surfaces by interpolating variational bicubic splines, *MATHEMATICS AND COMPUTERS IN SIMULATION*, 102, , 76-89
KOUIBIA KRICHI, ABDELOUAHED
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 - 2014 Artículo: Mathematical formulation and preliminary testing of a spline approximation algorithm for the extraction of road alignments, *Automation in construction (Print)*, 47, , 1-9
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- 2014 Artículo: Una propuesta de sistema electoral para Cataluña: reparto biproporcional, Política y sociedad (Madrid), 51, 3, 837-858
RAMÍREZ GONZÁLEZ, VICTORIANO
- 2014 Artículo: Ensuring Parliamentary Gender Equality Through a New Zipper Method: An Application to Finland, Social Indicators Research, 116, 2, 475-492
RAMÍREZ GONZÁLEZ, VICTORIANO
- 2014 Artículo: Measurement of Road Consistency on Two-Lane Rural Highways in Granada (Spain), Procedia Social and Behavioral Sciences Journal, 162, , 237-242
PASADAS FERNANDEZ, MIGUEL

Capítulos de libros (con ISBN)

- 2014 Título Capítulo: El Patrimonio local de Granada a través de la fotografía tridimensional: una propuesta de trabajo interdisciplinar y cooperativo entre alumnos de los grados de Arquitectura, Historia del Arte y Derecho, Título Libro: FECIES 2013: Asociación Española de Psicología Conductual (AEPC), , 2014, 978-84-697-0237-6
RUIZ HERRERA, ALFONSO
- 2014 Título Capítulo: Polynomial pattern fitting in scattered data, Título Libro: NUMAN2014 Conference Proceedings: Recent Approaches to Numerical Analysis: Theory, Methods and Applications: Applied Mathematics & Computers Lab Technical University of Crete, , 2014, 978-960-8475-21-2
BARRERA ROSILLO, DOMINGO
IBÁÑEZ PÉREZ, MARÍA JOSÉ
- 2014 Título Capítulo: Solving the Fredholm Integral Equation of the Second Kind by Global Spline Quasi-interpolation of the Kernel, Título Libro: NumAn2014 Conference Proceedings: AMCL's Digital Library, , 2014, 978-960-8475-22-9
BARRERA ROSILLO, DOMINGO
- 2014 Título Capítulo: Fitted parametrized spline curves help Mapmakers to define roads., Título Libro: Proceedings of the XIV International Conference in Mathematical and Computational Methods in Science and Engineering: , , 2014, 978-84-616-9216-3
BARRERA ROSILLO, DOMINGO
- 2014 Título Capítulo: On spline-based differential quadrature, Título Libro: Proceedings of the XIV International Conference in Mathematical and Computational Methods in Science and Engineering: , , 2014, 978-84-616-9216-3
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- 2014 Título Capítulo: Resolution of parabolic and hyperbolic PDEs using interpolating transient PS-splines., Título Libro: Proceedings of the XIV International Conference in Mathematical and Computational Methods in Science and Engineering: , , 2014, 978-84-616-9216-3
PASADAS FERNANDEZ, MIGUEL
GONZÁLEZ RODELAS, PEDRO
BARRERA ROSILLO, DOMINGO

Contribuciones en congresos

- 2015 Comunicación en congreso: A comparison of some spline-based quadrature methods, 4ème Conférence Internationale de la Société Marocaine de Mathématiques Appliquées, 12/02/2015, Oujda, Marruecos, Congreso
IBÁÑEZ PÉREZ, MARÍA JOSÉ
GONZÁLEZ RODELAS, PEDRO
BARRERA ROSILLO, DOMINGO
- 2015 Comunicación en congreso: Fitting B-spline curves for inferring road mean axis from multiple GPS traces, 4ème Conférence Internationale de la Société Marocaine de Mathématiques Appliquées, 12/02/2015, Oujda, Marruecos, Congreso
BARRERA ROSILLO, DOMINGO
- 2015 Comunicación en congreso: Determination of MOSFETs threshold voltage employing a WENO-based method to improve the numerical procedures, 4ème Conférence Internationale de la Société Marocaine de Mathématiques Appliquées, 12/02/2015, Oujda, Marruecos, Congreso
IBÁÑEZ PÉREZ, MARÍA JOSÉ
GONZÁLEZ RODELAS, PEDRO
BARRERA ROSILLO, DOMINGO
- 2015 Comunicación en congreso: The higher-dimensional Poincaré Birkhoff theorem for Hamiltonian systems, RSME 2015, 02/02/2015, Granada (España), Congreso
UREÑA ALCÁZAR, ANTONIO JESÚS
- 2014 Comunicación en congreso: Filling holes with smoothness conditions, V Jaen Conference on Approximation Theory, 23/06/2014, Ubeda (Jaen), Congreso
RODRÍGUEZ GONZÁLEZ, MIGUEL LUIS



- PASADAS FERNANDEZ, MIGUEL
FORTES ESCALONA, MIGUEL ÁNGEL
GONZÁLEZ RODELAS, PEDRO
- 2014 Comunicación en congreso: Multiresolution analysis for two - dimensional interpolatory schemes on uniform grids., 14th International Conference Computational and Mathematical Methods in Science and Engineering, 03/07/2014, Rota, Congreso
- FORTES ESCALONA, MIGUEL ÁNGEL
RODRÍGUEZ GONZÁLEZ, MIGUEL LUIS
- 2014 Comunicación en congreso: A dispersive model for the unzipping of double-stranded DNA molecules, The 10th AIMS Conference on Dynamical Systems, Differential Equations and Applications, 07/07/2014, - MADRID, ESPAÑA, Congreso
- NIETO MUÑOZ, JUAN JOSÉ
- 2014 Conferencias impartidas: Singular traveling waves and non-linear reaction-diffusion equations, Twelfth workshop on interactions between dynamical systems and partial differential equations, 16/06/2014, Barcelona, España, Congreso
- CALVO YAGÜE, JUAN
- 2014 Conferencias impartidas: Macroscopic limits and asymptotic behavior of some kinetic models in astrophysics and biology, Young researchers workshop on multiscale phenomena: modeling, analysis and computation, 27/10/2014, Washington DC, EEUU, Congreso
- CALVO YAGÜE, JUAN
- 2014 Comunicación en congreso: Nondispersive Dynamics of the Maxwell-Schrödinger-Poisson system, The 10th AIMS Conference on Dynamical Systems, Differential Equations and Applications, 07/07/2014, - MADRID, ESPAÑA, Congreso
- SÁNCHEZ ROMERO, ÓSCAR
- 2014 Comunicación en congreso: Modeling through nonlinear flux limited spreading, Barcelona Mathematical Days 2014, 07/11/2014, , Congreso
- SÁNCHEZ ROMERO, ÓSCAR
- 2014 Poster en Congreso: Polynomial Pattern Finding in Scattered Data, 6th International Conference on Numerical Analysis, 02/09/2014, Chania (Creta, Grecia), Congreso
- IBÁÑEZ PÉREZ, MARÍA JOSÉ
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- 2014 Poster en Congreso: Solving the Fredholm Integral Equation of the Second Kind by Global Spline Quasi-interpolation of the Kernel, 6th International Conference on Numerical Analysis, 02/09/2014, Chania (Creta, Grecia), Congreso
- BARRERA ROSILLO, DOMINGO
- 2014 Comunicación en congreso: On the higher dimensional Poincaré-Birkhoff theorem for hamiltonian systems, 10th AIMS Conference on Dynamical Systems, Differential Equations and Applications, 07/07/2014, - MADRID, ESPAÑA,, Congreso
- UREÑA ALCÁZAR, ANTONIO JESÚS
- 2014 Ponencia en Congreso: Measurement of Road Consistency on Two-Lane Rural Highways in Granada (Spain), Congreso Panamericano de Ingeniería de Tránsito, Transporte y Logística (PANAM 2014), 11/06/2014, Santander, España, Congreso
- PASADAS FERNANDEZ, MIGUEL