

Ficha de grupo de investigación

ELECTRODINÁMICA DE FENÓMENOS TRANSITORIOS

Código: TIC190

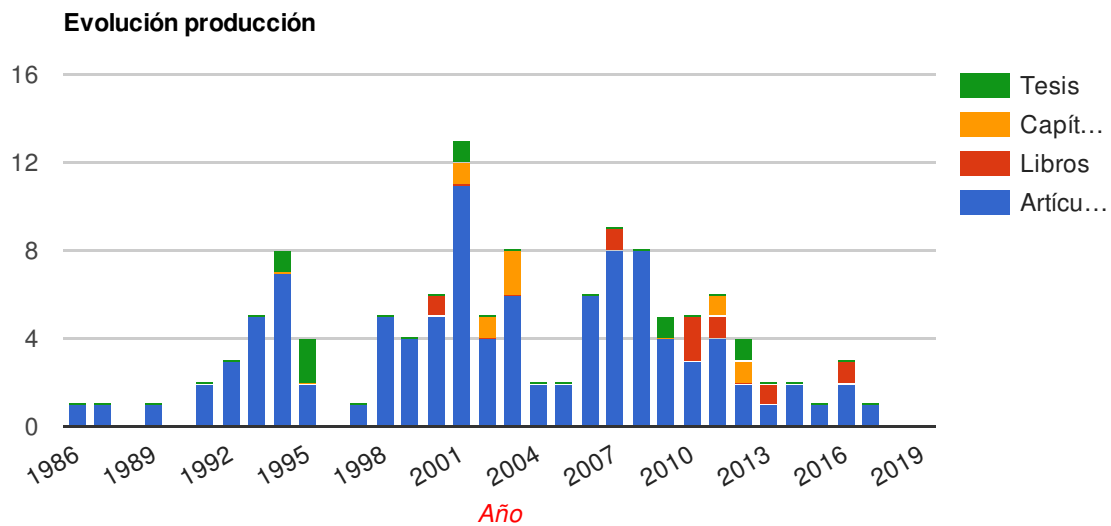
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- CEDRIC BLANCHARD
- SERGIO TOLEDO REDONDO Otros

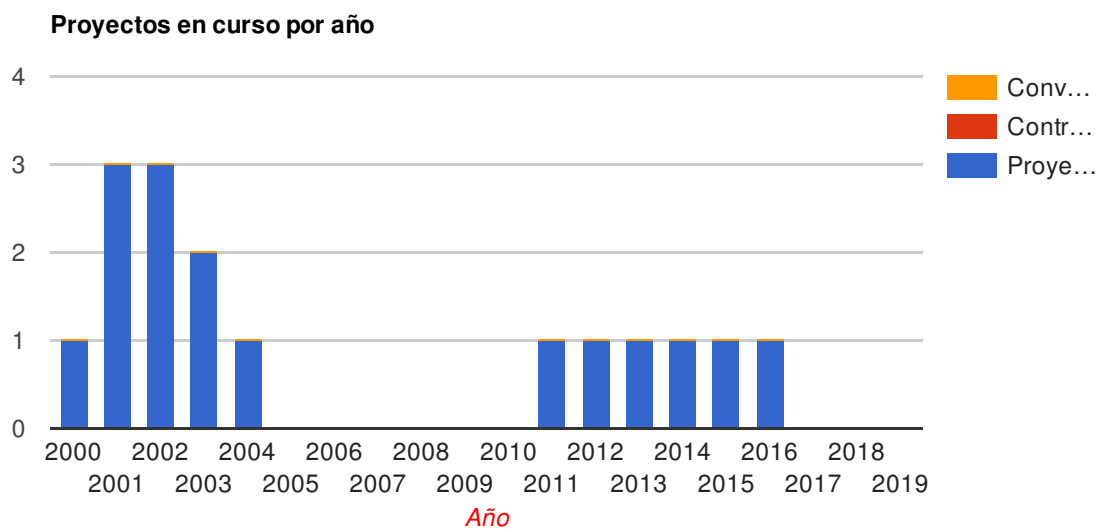
Producción 206

- Artículos (175)
- Libros (9)
- Capítulos de Libros (13)
- Tesis dirigidas (9)



Proyectos dirigidos 7

- Proyectos (7)
- Contratos (0)
- Convenios (0)



Actividades 1

Titulo publicación	Fuente	Tipo	Fecha
Schumann resonances at mars: effects of the day-night asymmetry and the dust loaded ionosphere	Geophysical research letters	Articulo	2017
Estática para arquitectos e ingenieros (incluye ejemplos resueltos con wxmaxima)	Editorial técnica avicam	Libros	2016
Full 3-d tlm simulations of the earth-ionosphere cavity: effect of conductivity on the schumann resonances	Journal of geophysical research	Articulo	2016
Solar storm effects during saint patrick's days in 2013 and 2015 on the schumann resonances measured by the elf station at sierra nevada (spain)	Journal of geophysical research	Articulo	2016
Tlm nodes: a new look at an old problem	IEEE transactions on microwave theory and techniques	Articulo	2015
Extremely low frequency band station for natural electromagnetic noise measurement	Radio science	Articulo	2014
Extremely low frequency band station for natural electromagnetic noise measurement		Articulo	2014
Juan antonio morente chiquero: in memoriam		Libros	2013
New experiment-based way to learn discrete fourier transform and time domain - frequency domain duality	IEEE transactions on education	Articulo	2013
Numerical simulation and experimental study of the natural electromagnetic waves in the elf and vlf bands		Tesis doctoral	2012
Parallel 3d-tlm algorithm for simulation of the earth-ionosphere cavity	Journal of computational physics	Articulo	2012
Parallelization of the transmission line matrix method. modelling schumann resonances and atmospheric	Proceedings. the 15 international IEEE symposium on numerical field calculation in electrical engineering	Capítulo de libro	2012
Variation of the first cut-off frequency of the earth-ionosphere waveguide observed by demeter	Journal of geophysical research	Articulo	2012
A late-time analysis procedure for extracting weak resonances. application to the schumann resonances obtained with the tlm method	Progress in electromagnetics research b. pier b	Articulo	2011
A late-time analysis procedure for extracting weak resonances. application to the schumann resonances obtained with the tlm method	Electromagnetic waves (cambridge, mass. online)	Articulo	2011
A late-time analysis procedure for extracting weak resonances. application to the schumann resonances obtained with the tlm method	Electromagnetic waves (cambridge, mass. online)	Articulo	2011
Leibniz y las ciencias empíricas/leibniz and the empirical sciences	Comares	Libros	2011
Rescaled range analysis of elf natural electromagnetic noise from antarctica	Progress in electromagnetics research symposium	Capítulo de libro	2011
Reply to comment by r. grad et al. on 'an analysis of vlf electric field spectra measured in titan's atmosphere by the huygens probe'	Journal of geophysical research- planets	Articulo	2011
A new approach for estimating titan's electron conductivity based on data from relaxation probe sensors on the huygens experiment	Planetary and space science	Articulo	2010
Dispersion inherent to tlm nodes for modelling of metamaterials	Electronics letters	Articulo	2010
Fundamentos físicos en la arquitectura, temas de fluidos y termodinámica	Editorial técnica avicam	Libros	2010
Fundamentos físicos en la arquitectura. prácticas de laboratorio	Editorial técnica avicam	Libros	2010

Study of schumann resonances based on magnetotelluric records from the western mediterranean and antarctica	Journal of geophysical research	Articulo	2010
An analysis of vlf electric field spectra measured in titan's atmosphere by the huygens probe	Journal of geophysical research	Articulo	2009
Importance of the singular constitutive parameters of cylindrical cloaks: illustration on the anticloak concept	Journal of the optical society of america b: optical physics	Articulo	2009
Rebuttal to comment on evidence of electrical activity on titan drawn from the schumann resonances sent by huygens probe	Icarus	Articulo	2009
Response of dispersive cylindrical cloaks to a nonmonochromatic plane wave	Journal of the optical society of america b: optical physics	Articulo	2009
Simulation of electromagnetic waves propagating in complex media with the tlm method	Universidad de granada. física aplicada	Tesis doctoral	2009
Electromagnetic wave propagation in the surface-ionosphere cavity of venus	Journal of geophysical research	Articulo	2008
Evidence of electrical activity on titan drawn from the schumann resonances sent by huygens probe	Icarus	Articulo	2008
Meteoric layers in planetary atmospheres	Space science reviews	Articulo	2008
Numerical determination of frequency behavior in cloaking structures based on l-c distributed networks with tlm method	Optics express	Articulo	2008
Numerical analysis of ionosphere disturbances and schumann mode splitting in the earth-ionosphere cavity	Journal of geophysical research	Articulo	2008
Structure of titan's low altitude ionized layer from the relaxation probe onboard huygens	Geophysical research letters	Articulo	2008
The schumann resonance: a tool for exploring the atmospheric environment and the subsurface of the planets and their satellites	Icarus	Articulo	2008
Time domain simulation of electromagnetic cloaking structures with tlm method	Optics express	Articulo	2008
A new numerical model for the simulation of elf wave propagation and the computation of eigenmodes in the atmosphere of titan: did huygens observe any schumann resonance?: titan as seen from huygens	Planetary and space science	Articulo	2007
A schumann-like resonance on titan driven by saturn's magnetosphere possibly revealed by the huygens probe	Icarus	Articulo	2007
A finite difference time domain model for the titan-ionosphere schumann resonances	Radio science	Articulo	2007
A numerical study of the schumann resonances in mars with the fdtd method	Journal of geophysical research: atmospheres	Articulo	2007
Determination of the effective permittivity of dielectric mixtures with the transmission line matrix method	Journal of applied physics	Articulo	2007
Effects of low energetic neutral atoms on martian and venusian dayside exospheric temperature estimations.	Space science reviews	Articulo	2007
Electron conductivity and density profiles derived from the mutual impedance probe measurements performed during the descent of huygens through the atmosphere of titan	Planetary and space science	Articulo	2007
Transmission line meshes for computational simulation of electromagnetic modes in the earth's atmosphere	Compel - the international journal for computation and mathematics in electrical and electronic engineering	Articulo	2007
Variables determinantes en la inserción socioprofesional de los titulados de la universidad de granada	Vicerrectorado de planificación, calidad y evaluación docente, universidad de granada	Libros	2007

Universidad de Granada			
A generalized dynamic symmetrical condensed tlm node for the modeling of time-varying electromagnetic media	Ieee transactions on antennas and propagation	Articulo	2006
A numerical study of atmospheric signals in the earth-ionosphere electromagnetic cavity with the transmission line matrix method	Journal of geophysical research	Articulo	2006
Effects of low energetic neutral atoms on martian and venusian dayside exospheric temperature estimations	Space science reviews	Articulo	2006
Electric properties and related physical characteristics of the atmosphere and surface of titan	Planetary and space science	Articulo	2006
On the circuit description of tlm nodes	International journal of electronics	Articulo	2006
Schumann resonances as a tool to study the lower ionospheric structure of mars	Radio science	Articulo	2006
Finite difference time domain simulation of the earth-ionosphere resonant cavity: schumann resonances	Ieee transactions on antennas and propagation	Articulo	2005
In situ measurements of the physical characteristics of titan's environment	Nature	Articulo	2005
Analysis of the finite difference time domain technique to solve the schrodinger equation for quantum devices	Journal of applied physics	Articulo	2004
Do schumann resonance frequencies depend on altitude?	Journal of geophysical research	Articulo	2004
A numerical simulation of earth's electromagnetic cavity with the transmission line matrix method: schumann resonances	Journal of geophysical research	Articulo	2003
A study of the propagation of electromagnetic waves in titan's atmosphere with the tlm numerical method	Icarus	Articulo	2003
Acceso virtual al laboratorio de electromagnetismo i	Proyectos de innovación docente en las universidades andaluzas : memorias de los proyectos, 1ª convocatoria, curso 2001-2002	Capítulo de libro	2003
Alternativa a las clases de problemas de pizarra	Proyectos de innovación docente en las universidades andaluzas : memorias de los proyectos, 1ª convocatoria, curso 2001-2002	Capítulo de libro	2003
Cassini-huygens. una misión espacial a saturno	Astronomía digital 10	Articulo	2003
Meteoric ions in the atmosphere of mars	Planetary and space science	Articulo	2003
Solar uv irradiation conditions on the surfaces of mars and earth	Photochemistry and photobiology	Articulo	2003
Time-varying electromagnetic-media modelling with tlm method	Electronics letters	Articulo	2003
Ion-neutral chemistry model of the lower ionosphere of mars	Journal of geophysical research	Articulo	2002
Martian atmospheric evolution: implications of an ancient intrinsic magnetic field	Astrobiology: the quest for the conditions of life	Capítulo de libro	2002
Meteoric ions in the atmosphere of mars	Planetary and space science	Articulo	2002
Nitriles produced by ion chemistry in the lower ionosphere of titan	Journal of geophysical research	Articulo	2002
The comas sola mission to test the huygens/hasi instrument on board a stratospheric balloon	Advances in space research	Articulo	2002
A model of the martian ionosphere below 70 km	Advances in space research	Articulo	2001
A three-dimensional symmetrical condensed tlm node for acoustics	Journal of sound and vibration	Articulo	2001
Capability of the cassini/huygens pwa-hasi to measure electrical conductivity in titan	Advances in space research	Articulo	2001

Cosmic ray and uv radiation models on the ancient martian surface	Icarus	Articulo	2001
Detection capability of cassini for thundercloud generated lightning discharges on titan	Planetary radio emissions v	Capítulo de libro	2001
Ionospheric layer induced by meteoric ionization in titan's atmosphere	Planetary and space science	Articulo	2001
Lightning activity on titan: can cassini detect it?	Planetary and space science	Articulo	2001
Modelling of thunderclouds and lightning generation on titan	Planetary and space science	Articulo	2001
Planetas extrasolares	Tribuna de astronomía revista de astronomía, astrofísica y ciencias del espacio	Articulo	2001
Polar ionic conductivity profile in fair weather conditions. terrestrial test of the huygens/hasi-pwa instrument aboard the comas sola balloon	Journal of atmospheric and solar - terrestrial physics	Articulo	2001
Programa dotig5 para el análisis, en el dominio del tiempo, de estructuras conductoras formadas por superficies continuas e hilos delgados	Universidad de granada. electromagnetismo y física de la materia	Tesis doctoral	2001
Propagation of electromagnetic waves in the lower ionosphere of titan	Advances in space research	Articulo	2001
Tlm method and acoustics	International journal of numerical modelling: electronic networks, devices and fields	Articulo	2001
A coupled model of titan's atmosphere and ionosphere	Icarus	Articulo	2000
Influence of electrophilic species on the lower ionosphere of titan	Geophysical research letters	Articulo	2000
Nitrogen isotope fractionation and its consequence for titan's atmospheric evolution	Planetary and space science	Articulo	2000
Surface and sub-surface electrical measurement of titan with the pwa-hasi experiment on huygens	Advances in space research	Articulo	2000
The upper atmosphere and ionosphere of titan: a coupled model	Advances in space research	Articulo	2000
Técnicas experimentales: electromagnetismo : teoría y prácticas	I.f. sánchez	Libros	2000
Chemistry of the galactic cosmic ray induced ionosphere of titan	Journal of geophysical research	Articulo	1999
Extrapolation of electromagnetic responses from conducting objects in time and frequency domains	IEEE transactions on microwave theory and techniques	Articulo	1999
Improved modelling of sharp zones in resonant problems with the tlm method	Applied computational electromagnetics society journal	Articulo	1999
Ionization by cosmic rays of the atmosphere of titan	Planetary and space science	Articulo	1999
On the application of parametric models to the transient analysis of resonant and multiband antennas	IEEE transactions on antennas and propagation	Articulo	1998
Order determination of ma models using third- and fourth-order statistics	Signal processing	Articulo	1998
Pulse-receiving characteristics of v-dipole antennas with resistive loading	IEEE transactions on electromagnetic compatibility	Articulo	1998
RCS of low observable targets with the tlm method	IEEE transactions on antennas and propagation	Articulo	1998
Simple derivation of scattering matrix for tlm nodes	Electronics letters	Articulo	1998
Dotig4, a time-domain numerical code for the study of the interaction of electromagnetic pulses with arbitrary	Compel - the international journal for computation and mathematics in	Articulo	1997

interaction of electromagnetic pulses with arbitrary conducting surfaces	Computation and mathematics in electrical and electronic engineering	Articulo	1997
Dotig-3: programa para el estudio de la interaccion de ondas electromagneticas con estructuras conductoras modeladas por hilos	Universidad de granada. electromagnetismo y física de la materia	Tesis doctoral	1995
Dispersion analysis for a tlm mesh of symmetrical condensed nodes with stubs	IEEE transactions on microwave theory and techniques	Articulo	1995
Resolucion de las ecuaciones integrales mfi y efi en el dominio del tiempo para superficies conductoras modeladas por parches planos	Universidad de granada. electromagnetismo y física de la materia	Tesis doctoral	1995
Time-domain analysis of magnetic-coated wire antennas	IEEE antennas and propagation magazine	Articulo	1995
A numerical analysis of wire antennas loaded with varistor-composite materials	IEEE transactions on electromagnetic compatibility	Articulo	1994
Ar-modeling bispectrum estimation using data segmentation into coupled records	Electronics letters	Articulo	1994
El metodo numerico transmission-line modelling (tlm) en problemas de radiacion y scattering	Universidad de granada. física aplicada	Tesis doctoral	1994
Group and phase velocities in the tlm-symmetrical-condensed node mesh	IEEE transactions on microwave theory and techniques	Articulo	1994
Modelling of straight thin wires using time-domain electric field integral equations	IEEE proceedings. microwaves, antennas and propagation	Articulo	1994
RCS of arbitrarily-shaped targets with the tlm method	IEEE transactions on antennas and propagation	Articulo	1994
Time domain analysis of dielectric-coated wire antennas and scatterers	IEEE antennas and propagation magazine	Articulo	1994
Wire-junction matrix model for the tlm method	IEEE transactions on antennas and propagation	Articulo	1994
An improved version of the computer code dotig for the time domain analysis of thin wire structures	Applied computational electromagnetics society journal	Articulo	1993
Comment on simple method for determining 3-d tlm nodal scattering in nonscalar problems	Electronics letters	Articulo	1993
Loaded-wire node for tlm method	Electronics letters	Articulo	1993
Subsectional-polynomial e-pulse synthesis and application to radar target discrimination	IEEE transactions on antennas and propagation	Articulo	1993
Two near to far zone approaches for scattering problems using the tlm method	IEEE transactions on antennas and propagation	Articulo	1993
Absorbing boundary conditions for the tlm method	IEEE transactions on microwave theory and techniques	Articulo	1992
Comparison of thin-wire models for the tlm model	Electronics letters	Articulo	1992
Time-domain integral equations methods for transient analysis	IEEE antennas and propagation magazine	Articulo	1992
About the study in the time domain of junctions between thin wires	Applied computational electromagnetics society journal	Articulo	1991
Optimum load for a linear antenna fed by a short duration pulse	International journal of electronics	Articulo	1991
Dotigl, a time-domain numerical code for the study of the interaction of electromagnetic pulses with thin-wire structures		Articulo	1989
Application of the monopulse technique to a planar array of nonlinearly loaded straight wire coupled antennas	IEEE transactions on electromagnetic compatibility	Articulo	1987
Time domain analysis of an array of straight wire coupled antennas	Electronics letters	Articulo	1986

	Título proyecto	Tipo	Inicio	Fin
1	Experimental and numerical study of natural electromagnetic phenomena for environmental diagnostic	Proyecto	12/1/14	12/31/16
2	Desarrollo de modelos numéricos tlm para el estudio de sistemas electromagnéticos complejos: aplicación a atmósferas planetarias y metamateriales.	Proyecto	12/1/11	12/31/13
3	Resolución de problemas: teoría y práctica	Proyecto	12/7/02	12/31/04
4	Experimentos virtuales en electromagnetismo. continuación de un laboratorio virtual	Proyecto	12/4/02	6/4/03
5	Estudio en el dominio del tiempo de la transformación de un pulso electromagnético en guías ópticas con semiconductores activos	Proyecto	12/14/01	9/13/02
6	Acceso virtual al laboratorio de electromagnetismo i	Proyecto	12/1/01	12/31/01
7	Alternativa a las clases de problemas de pizarra	Proyecto	12/16/00	9/30/01

Actividades 1

Título actividad	Entidad	Tipo	Fecha
Participación en comité de revista: geofizika		Comités científicos de revista	Mar 1, 2011

Colaboradores 25

- ALFONSO SALINAS EXTREMERA (82)
- JORGE PORTÍ DURÁN (67)
- JESÚS FRANCISCO FORNIELES CALLEJÓN (44)
- SERGIO TOLEDO REDONDO (31)
- CEDRIC BLANCHARD (19)
- RAFAEL ANTONIO GOMEZ MARTIN (17)
- GREGORIO MOLINA CUBEROS (16)
- AMELIA RUBIO BRETONES (15)
- Juan Antonio Morente Molinera (15)
- IGNACIO SÁNCHEZ GARCÍA (9)
- M^a DEL CARMEN CARRIÓN PÉREZ (6)
- ANTOLINO GALLEGO MOLINA (5)
- ANA RUIZ CONSTAN (4)
- ANTONIO PEDRERA PARIAS (4)
- DIEGO PABLO RUIZ PADILLO (4)
- JESUS GALINDO ZALDIVAR (4)
- ALBERTO MARTÍN MOLINA (1)
- ANGEL VICENTE DELGADO MORA (1)
- DANIEL RAMOS NAVAS-PAREJO (1)
- FRANCISCO JOSE OLMO REYES (1)
- JUAN ANTONIO NICOLAS MARIN (1)
- JUAN FRANCISCO GOMEZ LOPERA (1)
- JUAN LUIS ORTEGA VINUESA (1)
- MARÍA TIRADO MIRANDA (1)
- ROQUE HIDALGO ALVAREZ (1)