

JOAQUIN JAVIER TORRES AGUDO

Grupo de Investigación: FÍSICA ESTADÍSTICA Y DE LOS SISTEMAS COMPLEJOS (Cod.: FQM165)

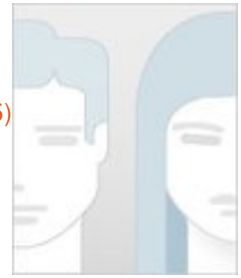
Departamento: Universidad de Granada. Electromagnetismo y Física de la Materia

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Código ORCID: <http://orcid.org/0000-0001-6175-9676>

RG: https://www.researchgate.net/profile/Torres_Agudo

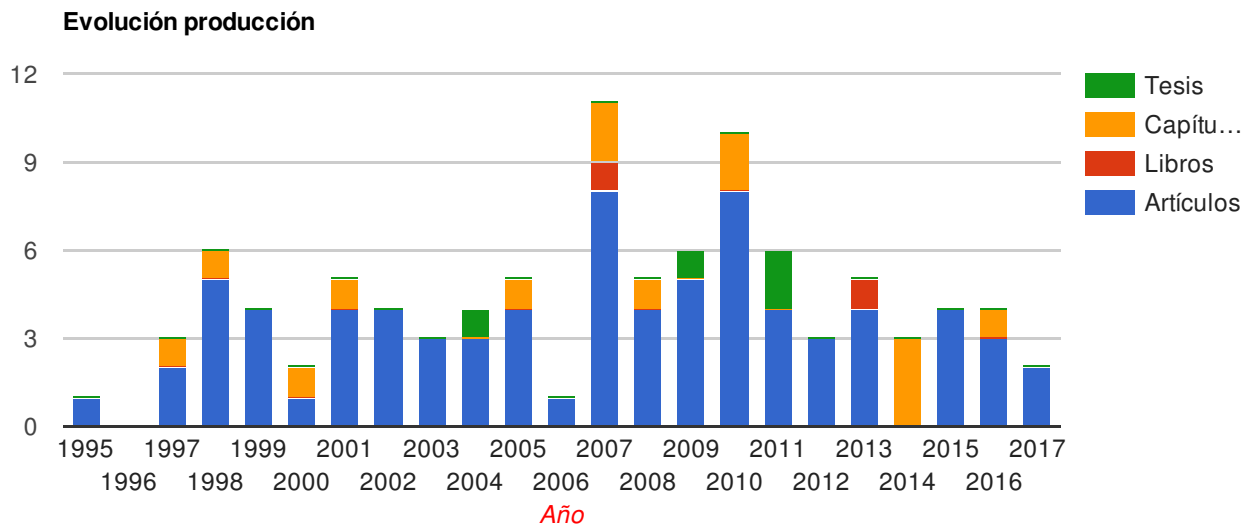
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Ficha del Directorio

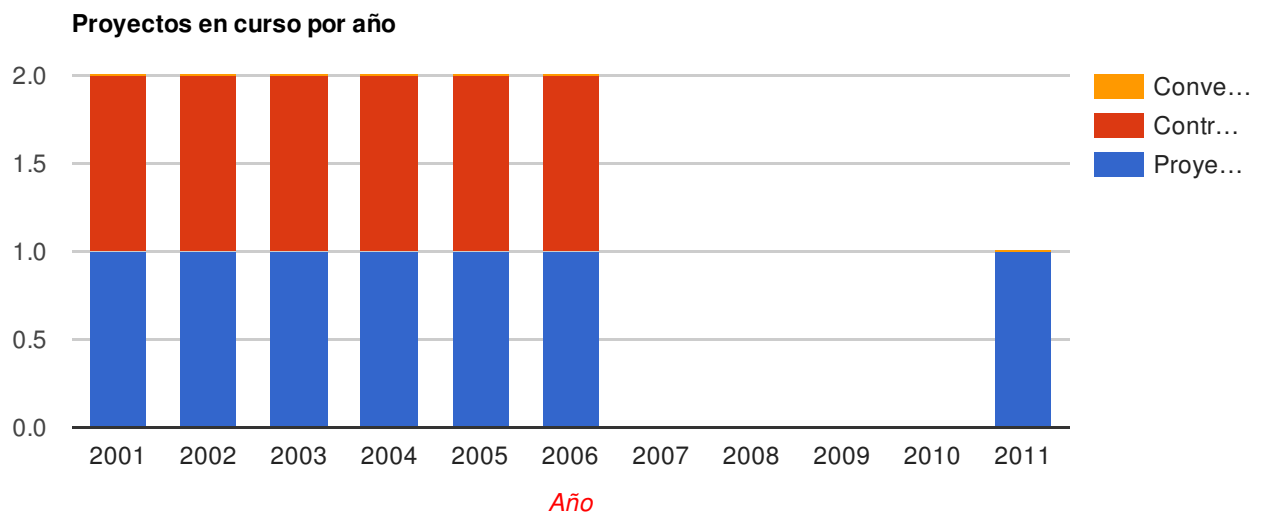
Producción 97

Artículos (77) Libros (2) Capítulos de Libros (14) Tesis dirigidas (4)



Proyectos dirigidos 3

Proyectos (2) Contratos (1) Convenios (0)



Actividades 1

Titulo publicación	Fuente	Tipo	Fecha
Double inverse stochastic resonance with dynamic synapses	Physical review e	Articulo	2017
Inverse stochastic resonance in networks of spiking neurons		Articulo	2017
Emergence of low noise frustrated states in e/i balanced neural networks	Neural networks : the official journal of the international neural network society	Articulo	2016
Interplay between subthreshold oscillations and depressing synapses in single neurons	Plos one	Articulo	2016
Introduction to focus issue: complex dynamics in networks, multilayered structures and systems	Chaos (woodbury, n.y.)	Articulo	2016
Structure, function, and development of large-scale complex neural networks	Big data of complex networks	Capítulo de libro	2016
Brain performance versus phase transitions	Scientific reports	Articulo	2015
Effects of dynamic synapses on noise-delayed response latency of a single neuron	Physical review e	Articulo	2015
Efficient transmission of subthreshold signals in complex networks of spiking neurons	Plos one	Articulo	2015
Evolution of brain network structure under a critical condition as induced by local currents	International journal of complex systems in science	Articulo	2015
Boltzmann machine	Encyclopedia of computational neuroscience, d. jaeger, r. jung (eds.)	Capítulo de libro	2014
Hopfield network	Encyclopedia of computational neuroscience, d. jaeger, r. jung (eds.)	Capítulo de libro	2014
Perceptron learning	Encyclopedia of computational neuroscience, d. jaeger, r. jung (eds.)	Capítulo de libro	2014
Physics, computation, and the mind - advances and challenges at interfaces: proceedings of the 12th granada seminar on computational and statistical physics	Aip conference proceedings	Libros	2013
Robust short-term memory without synaptic learning	Plos one	Articulo	2013
Short-term synaptic plasticity and heterogeneity in neural systems	Aip conference proceedings	Articulo	2013
Signal transmission competing with noise in model excitable brains	Aip conference proceedings	Articulo	2013
Stochastic multiresonances in complex nets of spiking neurons	International journal of complex systems in science .	Articulo	2013
Characterization of quantum phase transitions in dirac systems by means of wave packet dynamics	Aip advances	Articulo	2012
Short-term synaptic facilitation improves information retrieval in noisy neural networks	Europhysics letters	Articulo	2012
Stochastic resonance crossovers in complex networks	Plos one	Articulo	2012
Can intrinsic noise induce various resonant peaks?	New journal of physics	Articulo	2011
Emergence of resonances in neural systems: the interplay between adaptive threshold and short-term synaptic plasticity	Plos one	Articulo	2011
Enhancing neural-network performance via assortativity	Physical review. e, statistical, nonlinear, and soft matter physics	Articulo	2011
Interplay between network topology and dynamics in neural systems	Universidad de granada. electromagnetismo y física de la materia	Tesis doctoral	2011

Study of long-range correlations and criticality in neural media and other biological systems	Universidad de granada, facultad de ciencias	Tesis doctoral	2011
Why are so many networks disassortative?	Aip conference proceedings	Articulo	2011
Entropic origin of disassortativity in complex networks	Physical review letters	Articulo	2010
Evolving networks and the development of neural systems	Journal of statistical mechanics: theory and experiment	Articulo	2010
Excitable networks: non-equilibrium criticality and optimum topology	International journal of bifurcation and chaos in applied sciences and engineering	Articulo	2010
History-dependent excitability as a single-cell substrate of transient memory for information discrimination	Plos one	Articulo	2010
Irregular dynamics in up and down cortical states	Plos one	Articulo	2010
Modeling biological neural networks	Handbook of natural computing	Capítulo de libro	2010
Nonequilibrium behavior in neural networks: criticality and optimal performance	Advances in cognitive neurodynamics (ii)	Capítulo de libro	2010
Self-organization without conservation: are neuronal avalanches generically critical?	Journal of statistical mechanics: theory and experiment	Articulo	2010
Unstable dynamics, nonequilibrium phases, and criticality in networked excitable media	Physical review. e, statistical, nonlinear, and soft matter physics	Articulo	2010
Wave packet revivals in a graphene quantum dot in a perpendicular magnetic field	Physical review b: covering condensed matter and materials physics	Articulo	2010
Chaos in heterogeneous networks with temporally inert nodes	International journal of bifurcation and chaos in applied sciences and engineering	Articulo	2009
Development of neural network structure with biological mechanisms	Lecture notes in computer science	Articulo	2009
Maximum memory capacity on neural networks with short-term synaptic depression and facilitation	Neural computation	Articulo	2009
Nonlinear preferential rewiring in fixed-size networks as a diffusion process	Physical review. e, statistical, nonlinear, and soft matter physics	Articulo	2009
Short-term synaptic plasticity: computational implications in the emergent behavior of neural systems	Universidad de granada. electromagnetismo y física de la materia	Tesis doctoral	2009
Switching dynamics of neural systems in the presence of multiplicative colored noise	Lecture notes in computer science	Articulo	2009
Complex behavior in a network with time-dependent connections and silent nodes	Journal of statistical mechanics: theory and experiment	Articulo	2008
Excitable networks: non-equilibrium criticality and optimum topology	Modelling and computation on complex networks and related topics	Capítulo de libro	2008
Functional optimization in complex excitable networks	Europhysics letters	Articulo	2008
Instabilities in attractor networks with fast synaptic fluctuations and partial updating of the neurons activity	Neural networks : the official journal of the international neural network society	Articulo	2008
The role of synaptic facilitation in spike coincidence detection	Journal of computational neuroscience	Articulo	2008
Attractor neural networks with activity-dependent synapses: the role of synaptic facilitation	Neurocomputing	Articulo	2007
Chaotic hopping between attractors in neural networks	Neural networks : the official journal of the international neural network society	Articulo	2007

Chaotic hopping between attractors in neural networks.	Journal of the International Neural Network Society	Artículo	2007
Competition between synaptic depression and facilitation in attractor neural networks	Neural computation	Artículo	2007
Complex networks with time-dependent connections and silent nodes	New trends and tools in complex networks	Capítulo de libro	2007
Cooperative behavior in neural systems	Aip	Libros	2007
Improvement of spike coincidence detection with facilitating synapses	Neurocomputing	Artículo	2007
Information processing with unstable memories	Aip conference proceedings	Artículo	2007
Modelling neural systems with short-term depression and facilitation	Aip conference proceedings	Artículo	2007
Networks with heterogeneously weighted connections and partial synchronization of nodes	Computer physics communications	Artículo	2007
Signal detection in networks of spiking neurons with dynamical synapses	Aip conference proceedings	Artículo	2007
Topology induced instabilities in neural nets with activity-dependent synapses	New trends and tools in complex networks	Capítulo de libro	2007
Effects of fast presynaptic noise in attractor neural networks	Neural computation	Artículo	2006
Algorithms for identification and categorization	Aip conference proceedings	Artículo	2005
Discriminacion, generalizacion y clasificacion mediante automatas neuronales con ruido que induce depresion sinaptica	Cedi 2005	Capítulo de libro	2005
Effects of static and dynamic disorder on the performance of neural automata	Biophysical chemistry	Artículo	2005
Instability of attractors in auto-associative networks with bio-inspired fast synaptic noise	Lecture notes in computer science	Artículo	2005
Interacting slow and fast dynamics in precise spiking-bursting neurons	Lecture notes in computer science	Artículo	2005
Fenómenos cooperativos en autómatas neuronales estocásticos con sinapsis dinámicas	Universidad de granada. electromagnetismo y física de la materia	Tesis doctoral	2004
Influence of topology on the performance of a neural network	Neurocomputing	Artículo	2004
Modeling action potential generation and propagation in nrk fibroblasts	American journal of physiology: cell physiology	Artículo	2004
Switching between memories in neural automata with synaptic noise	Neurocomputing	Artículo	2004
Coincidence detection with dynamic synapses	Network: computation in neural systems	Artículo	2003
Ionic basis for excitability of normal rat kidney (nrk) fibroblasts	Journal of cellular physiology	Artículo	2003
On the role of synaptic depression in the performance of attractor neural networks	Aip conference proceedings	Artículo	2003
Associative memory with dynamic synapses	Neural computation	Artículo	2002
Reconstruction of atomic effective potentials from isotropic scattering factors	Physical review a - atomic, molecular, and optical physics	Artículo	2002
Spatio-temporal patterns of network activity in the inferior olive	Neurocomputing	Artículo	2002
Storage capacity of attractor neural networks with depressing synapses	Physical review. e, statistical, nonlinear, and soft matter physics	Artículo	2002
Dynamics of two electrically coupled chaotic neurons: experimental observations and model analysis	Biological cybernetics	Artículo	2001
Hysteresis and bistability in a realistic model for ip3-driven ca2+ oscillations	Europhysics letters	Artículo	2001

On the role of dynamic synapses in coincidence detection	Neurocomputing	Articulo	2001
On the role of dynamic synapses in coincidence detection	Trends in research: computational neuroscience 2001	Capítulo de libro	2001
Regularization mechanisms of spiking-bursting neurons	Neural networks : the official journal of the international neural network society	Articulo	2001
Pattern formation in networks of chaotic spiking-bursting neurons	Dynamical systems	Articulo	2000
Pattern formations in networks of chaotic spiking-bursting neurons	Dynamical systems: from cristal to chaos	Capítulo de libro	2000
Neural networks in which synaptic patterns fluctuate with time	Journal of statistical physics	Articulo	1999
On the effect of synaptic fluctuations during retrieval processes in neural network models	Computer physics communications	Articulo	1999
Origin of coherent structures in a disree chaotic medium	Physical review. e, statistical, nonlinear, and soft matter physics	Articulo	1999
Slow dynamics and regularization phenomena in ensembles of chaotic neurons	Physica a. statistical mechanics and its applications	Articulo	1999
Effect of correlated fluctuations of synapses in the performance of hopfield's neural network	Anales de física	Articulo	1998
Effect of correlated fluctuations of synapses in the performance of neural networks	Physical review letters	Articulo	1998
Effect of correlated fluctuations of synapses in the performance of hopfield neural network	Anales de física. monografías rsef	Capítulo de libro	1998
Modeling ionic diffusion in magnetic systems	Physical review. b, condensed matter	Articulo	1998
Nonequilibrium neural network with competing dynamics	Physica a. statistical mechanics and its applications	Articulo	1998
Synchronous behavior of two electrically coupled chaotic model neurons	Neural computation	Articulo	1998
Neural networks with fast time-variation of synapses	Journal of physics a: mathematical and general	Articulo	1997
Neural networks with fluctuating synapses	Lecture notes in physics	Articulo	1997
Neural networks with fluctuating synapses	Computational physics	Capítulo de libro	1997
On a new set of polynomials representing the wave functions of the quantum relativistic harmonic oscillator	Annals of numerical mathematics	Articulo	1995

	Título proyecto	Tipo	Inicio	Fin
1	Estudio y modelización de los procesos de exocitosis involucrados en la transmisión sináptica y su relación con enfermedades neurodegenerativas	Proyecto	7/22/11	12/31/11
2	Estudio teórico de procesos biofísicos en sistemas neuronales y otros medios celulares (contrato ramón y cajal)	Proyecto	11/16/01	11/15/06
3	Estudio teórico de procesos biofísicos en sistemas neuronales y otros medios celulares: aplicación al estudio del procesamiento de información y a la formación de patrones	Contrato	11/16/01	11/15/06

Actividades 1

Título actividad	Fuente	Tipo	Fecha
Participación en comité de revista: neurocomputing		Comités científicos de revista	May 1, 2007

Colaboradores

- JOAQUÍN MARRO BORAU (50)
- PEDRO LUIS GARRIDO GALERA (16)
- SAMUEL JOHNSON (14)
- MIGUEL ANGEL MUÑOZ MARTINEZ (4)
- ELVIRA ROMERA GUTIÉRREZ (3)
- ALBERTO PRIETO ESPINOSA (1)
- ALEJANDRO ZARZO ALTAREJOS (1)
- ANTONIO MIGUEL MORA GARCÍA (1)
- Ana Paula Millán Vidal (1)
- JESÚS SÁNCHEZ-DEHESA MORENO-CID (1)
- JOSE LUIS BERNIER VILLAMOR (1)
- JUAN ANTONIO BONACHELA FAJARDO (1)
- JUAN CARLOS ANGULO IBÁÑEZ (1)
- MARIA ISABEL GARCÍA ARENAS (1)
- PEDRO ANGEL CASTILLO VALDIVIESO (1)