Richard R. Carrillo

Short Curriculum Vitae (2021)

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PROFESSIONAL EXPERIENCE

2021 - current	**Assistant professor** in the in the Department of Computer Architecture and Technology of the University of Granada (Spain)
2018 - 2021	**Postdoctoral research fellow** at University of Granada (Spain) Project: Reverse-engineering the cerebellum for adaptive robot control (PI)
2017 - 2018	**Postdoctoral research fellow** at Institut de la Vision, University Pierre and Marie Curie, Paris (France)
2013 - 2017	**Postdoctoral research fellow** at University of Granada (Spain) Projects: • NEUROPACT (Spanish) • Human Brain Project (EU FET Flagship) • Plat-EEG (Andalusian) • PYR-2014-6 (University of Granada) (PI) • REALNET (EU 7th FP) • TOMSY (EU 7th FP)
2010 - 2012	**Postdoctoral research fellow** at University of Almeria (Spain) Grant "Juan de la Cierva" awarded by Spanish Ministry
2002 - 2009	**Research assistant** at University of Granada (Spain) Projects: • SENSOPAC (EU 6th FP) • SpikeFORCE (EU 5th FP)

UNIVERSITY EDUCATION

2008/2009	**PhD**, University of Cagliari (Italy) / University of Granada (Spain) Thesis title: *Efficient simulation scheme for spiking neural networks / Simulación eficiente de estructuras neuronales basadas en el sistema nervioso*.
2002	**Ingeniería informática (Master of Science in Computer Science)**, University of Granada (Spain)
2000	**Ingeniería técnica en informática de sistemas (Bachelor of Information Technology)**, University of Granada (Spain)

SUPERVISION OF STUDENTS

2013	**Co-direction of PhD**: Niceto R. Luque Sola Thesis title: *Bio-Inspired Robotic Control Schemes Using Biologically Plausible Neural*.
2011	**Co-direction of PhD**: Jesús A. Garrido Alcázar Thesis title: *Simulation of biological neuronal structures. Design and functional study of the cerebellum*.

AWARDS

2002   **Second prize (and special prize given by the NECSO company)**
Conferred by First edition of the Spanish national contest "Arquímedes"

2003   **Best undergraduate degree dissertation**
Conferred by School of Informatics and Telecommunications Engineering (Granada)

2003   **Teaching innovation project: Hardware/software experimentation environment based on a microrobot**
Conferred by University of Granada

2005   **Better paper/poster**
Conferred by International Work-Conference on Artificial Neural Networks 2005

2007   **Contribution to the external prestige of the School of Informatics and Telecommunications Engineering**
Conferred by School of Informatics and Telecommunications Engineering (Granada)

2001   **Best academic record in Bachelor of Information Technology**
Conferred by School of Informatics and Telecommunications Engineering (Granada)

PUBLICATIONS

▪ 23 journal publications: 22 in JCR (12 ranked Q1, 8 ranked Q2 and 2 ranked Q3)
▪ 28 contributions to congress (21 international and 8 Spanish conferences).
Selected journal publications:

- I. Abadía, F. Naveros, E. Ros, R.R. Carrillo, N.R. Luque
  A cerebellar-based solution to the nondeterministic time delay problem in robotic control, *Science Robotics*, 6(58) (2021)

- N.R. Luque, F. Naveros, R.R. Carrillo, E. Ros, A. Arleo
  Spike burst-pause dynamics of Purkinje cells regulate sensorimotor adaptation, *PLOS Computational Biology*, 15(3), (2019)

- R.R. Carrillo, F. Naveros, E. Ros, N.R. Luque
  A Metric for Evaluating Neural Input Representation in Supervised Learning Networks, *IEEE Transactions on Neural Networks*, 22(8), (2011) pp. 1321-1328

- R.R. Carrillo, E. Ros, S. Tolu, T. Nieus, E. D'Angelo
  Event-driven simulation of cerebellar granule cells, *Biosystems*, 94(1-2), (2008) pp. 10-17

- R.R. Carrillo, E. Ros, C. Boucheny, O. J-M D Coenen
  A real-time spiking cerebellum model for learning robot control, *Biosystems*, 94(1-2), (2008) pp. 18-27

- R.R. Carrillo, E. Ros, B. Barbourb, C. Boucheny, O. Coenen
  Event-driven simulation of neural population synchronization facilitated by electrical coupling, *Biosystems*, 87(2--3), (2007) pp. 275-280

- E. Ros, R. Carrillo, E. M. Ortigosa, B. Barbour, R. Agís
  Event-Driven Simulation Scheme for Spiking Neural Networks Using Lookup Tables to Characterize Neuronal Dynamics, *Neural Computation*, 18(12), (2006) pp. 2959-2993