

## Aggregated Publications List

1. Dalibor Bielek, Sandro Carrara, Elisabetta Chicca, Fernando Corinto, Julius Georgiou, Bernabé Linares-Barranco, Themis Prodromakis, Sabina Spiga, Ronald Tetzlaff, “*EU COST Action IC1401–Pushing the Frontiers of Memristive Devices to Systems*”, Proceedings of the Melecon Conference in Cyprus 2016
2. A. Thomas, S. Niehörster, S. Fabretti, N. Shephard, O. Kuschel, K. Küpper, J. Wollschläger, P. Krzysteczko, Elisabetta Chicca, “*Tunnel junction based memristors as artificial synapses*,” *Frontiers in Neuroscience* 9, 2015, p. 241
3. H. Mostafa, A. Khiat, A. Serb, C. Mayr, G. Indiveri, T. Prodromakis, “*Implementation of a spike-based perceptron learning rule using  $TiO_{2-x}$  memristors*”, *Frontiers in Neuroscience*, vol. 9, no. 357, 2015
4. S. Brivio, E. Covi, A. Serb, T. Prodromakis, M. Fanciulli, and S. Spiga, “*Gradual set dynamics in  $HfO_2$ -based memristor driven by sub-threshold voltage pulses*” *IEEE Proceedings of Memrisys 2015*
5. E. Covi, S. Brivio, A. Serb, T. Prodromakis, M. Fanciulli, and S. Spiga, “ *$HfO_2$ -based Memristors for Neuromorphic Applications*”, *IEEE ISCAS 2016*, p.393
6. C. Dias, J. Ventura, P. Aguiar, Memristive-based neuromorphic applications and associative memories, accepted in “*Memristors, Memristive Devices and Systems*”, Springer (2017).
7. C. Dias, H. Lv, R. Picos, P. Aguiar, S. Cardoso, P. P. Freitas, J. Ventura, “*Bipolar Resistive Switching in Si/Ag Nanostructures*”, submitted to *Appl. Surf. Sci.*
8. E. Covi, S. Brivio, A. Serb, T. Prodromakis, M. Fanciulli, and S. Spiga, ‘*Analog memristive synapse in spiking networks implementing unsupervised learning*’, *Front. Neurosci.*, vol. 10, p. 482, Oct. 2016.
9. S. Brivio, E. Covi, A. Serb, T. Prodromakis, M. Fanciulli and S. Spiga, ‘*Experimental study of gradual/abrupt dynamics of  $HfO_2$ -based memristive devices*’, *Appl. Phys. Lett.*, vol. 109, no. 13, p. 133504, Sep. 2016.
10. Isha Gupta, Alexantrou Serb, Ali Khiat, Ralf Zeitler, Stefano Vassanelli & Themistoklis Prodromakis, ‘*Real-time encoding and compression of neuronal spikes by metal-oxide memristors*’, *Nature Comms*, 2016.
11. D Carta, P Guttman, A Regoutz, A Khiat, A Serb, I Gupta, A Mehonic, M Buckwell, S Hudziak, A J Kenyon and T Prodromakis, ‘*X-ray spectromicroscopy investigation of soft and hard breakdown in RRAM devices*’, *Nanotechnology*, 27, 2016.
12. S. Ambrogio, S. Balatti, V. Milo, R. Carboni, Z. Wang, A. Calderoni, N. Ramaswamy, and D. Ielmini, “*Neuromorphic learning and recognition with one-transistor-one-resistor synapses and bistable metal oxide RRAM*,” *IEEE Trans. Electron Devices* 64 (2016). DOI: 10.1109/TED.2016.2526647
13. S. Ambrogio, N. Ciochini, M. Laudato, V. Milo, A. Pirovano, P. Fantini and D. Ielmini, “*Unsupervised learning by spike timing dependent plasticity in phase change memory (PCM) synapses*,” *Front. Neurosci.* 10:56 (2016). DOI: 10.3389/fnins.2016.00056
14. S. Balatti, S. Ambrogio, R. Carboni, V. Milo, Z.-Q. Wang, A. Calderoni, N. Ramaswamy, and D. Ielmini, “*Physical unbiased generation of random numbers with coupled resistive switching devices*,” *IEEE Trans. Electron Devices* 64 (2016).
15. S. Ambrogio, S. Balatti, V. Milo, R. Carboni, Z. Wang, A. Calderoni, N. Ramaswamy, D. Ielmini, “*Novel RRAM-enabled 1T1R synapse capable of low-power STDP via burst-mode communication and real-time unsupervised machine learning*,” *Symp. VLSI Tech. Dig.* (2016).
16. A. Ascoli, R. Tetzlaff, and L. O. Chua, “*Continuous approximations for robust simulations of a TaO memristor model*”, *NDES*, 2015
17. A. Ascoli, R. Tetzlaff, and L. O. Chua, “*Robust simulation of a TaO memristor model*”, *RadioEngineering*, June 2015, DOI: 10.13164/re.2015.0001

18. Milutin Nešić, Stefan Ivanovic, Amela Zekovic, Slavica Marinkovic, Branko Tomcik, Bratislav P. Marinkovic, and Borislav Hadžibabic, “*Emulation of a memristor element using a programmable microcontroller device*”, Proceedings of Papers 2nd Int. Conf. on Electrical, Electronic and Computing Engineering (IcETRAN 2015), June 8-11, 2015, Silver Lake (Srebrno Jezero), Serbia, Eds Z. Nikolic and V. Potkonjak, ISBN: 978-86-80509-71-6
19. L. M. Guerra, C. Dias, J. Pereira, H. Lv, S. Cardoso, P. P. Freitas, J. Ventura, “*Unipolar Nonvolatile Resistive Switching in Pt/MgO/Ta/Ru Structures Deposited by Magnetron Sputtering*”, accepted in J. Nanosci. Nanotech.
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42. Ascoli, R. Tetzlaff, Z. Biolek, Z. Kolka, V. Biolková, and D. Biolek, "The Art of Finding Accurate Memristor Model Solutions," IEEE Journal on Emerging and Selected Topics in Circuits and Systems, vol. 5, no. 2, pp. 133-142, 2015, DOI: 10.1109/JETCAS.2015.2426493
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