

MemoCIS 8th Workshop and MC Meeting  
'Memristors – Devices, Models, Circuits, Systems and Applications', Dresden, Germany  
20–21.09.2018

## PROGRAM

### Day 1 - Thursday, September 20th, 2018

- 08:30 – 09:00 Registration and Welcome
- 09:00 – 10:00 Keynote Talk: **Prof. Leon O. Chua**, "POP and DRM: Why RRAM, MRAM, FRAM, STT-RAM, Phase Change Memories are Memristors?"
- 10:00 – 10:30 **Prof. Daniele Ielmini**, "Computing with ReRAM devices: opportunities and challenges"
- 10:30 – 11:00 Coffee Break
- 11:00 – 11:30 **Prof. Dalibor Bielek**, "Synthesis of predictive models of nonlinear phenomena"
- 11:30 – 12:00 **Francesco Marrone**, "Fundamentals of Nonlinear Circuits and Systems with Memristors"
- 12:00 – 12:30 **Prof. Ronald Tetzlaff**, "Nature inspired computing by complex behavior of memristor arrays"
- 12:30 – 14:00 Lunch
- 14:00 – 14:30 **Dr. Victor Erokhin**, "Polyaniline-based memristive devices"
- 14:30 – 15:00 **Prof. Sandro Carrara**, "Very Recent Advances on Memristive Sensors"
- 15:00 – 15:30 Coffee Break

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15:30 – 17:00      **Poster Session and Regular Papers**

**Mahdi Kiani**, "Novel neuromorphic circuit to drive perovskite oxide memristive artificial synapse"

**Nan Du**, "Security aspect of BFO based memristive devices"

**Danilo Burger**, "PLD and Magnetron sputtering of BFO"

**Venkata Rao Rayapati**, "Modelling and design of BFO crossbar structures"

**Emily Growney Kalaf**, "Biological interfacing for neural implants and nanomaterials: a review"

**Daniel Blaschke**, "Resistive switching of HfO<sub>2</sub> thin films - influence of crystal structure and electrode material"

**Maria Apostolopoulou**, "Evaluation of the Chua Memristor Centre website"

**Iosif Angelos Fyrigos**, "Silicon Nitride ReRAM Device Modelling"

**Rafailia Eirini Karamani**, "Memristor Cellular Automata for Conway's Game of Life"

**Vasileios Ntinis**, "FPGA Memristor implementation for Unsupervised STDP learning"

17:00 – 19:00      **Management Committee Meeting**

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### Day 2 - Friday, September 21st, 2018

- 08:45 – 09:45 **Prof. Themis Prodromakis**, "Practical applications of Memristive Technologies – beyond memory"
- 09:45 – 10:15 **Dr. Sabina Spiga**, "Memristive devices for spiking neural networks"
- 10:15 – 10:45 **Coffee Break**
- 10:45 – 11:15 **Prof. Bernabé Linares-Barranco**, "Memristive Neuromorphic Systems"
- 11:15 – 11:45 **Dr. Damien Querlioz**, "Neural-like computing with populations of superparamagnetic devices"
- 11:45 – 13:15 **Lunch**
- 13:15 – 13:45 **Prof. Shahar Kvatinsky**, „A Taxonomy and Evaluation Framework for Memristive Logic“
- 13:45 – 14:15 **Dr. Alon Ascoli**, "Insights into the complex dynamics of a TaO resistance switching memory"
- 14:15 – 14:45 **Prof. Said Hamdioui**, "Memristive devices for computing"
- 14:45 – 15:15 **Coffee Break**



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15:15 – 16:45 **Poster Session and Regular Papers**

**Bratislav Marinkovic**, "Memristive behavior of Pt/TiO<sub>2</sub>/Pt nanodevices prepared by focused electron beam induced deposition"

**Heidemarie Schmidt**, "Boolean and Fuzzy logics realized with electroforming-free complementary BiFeO<sub>3</sub> memristors"

**Andres Udal**, "Study of worldwide trends in memristor research - updated"

**Maria Apostolopoulou**, "Building a digital marketing strategy for the Chua Memristor Centre"

16:45 – 17:45 **Round-Table Discussion "Memristor Device Technology in the Future"**

