

### MC 33 Memristive devices and materials for emerging computing paradigms I

Monday, 2 September, morning

Chair: C Dias

Room:

Hours	ID	Name	Type	Title
10h30		Ilia Valov	Invited	Recent Advances in Understanding Fundamentals of Memristive Devices – Processes and Materials
11h00	12668	Andreia Catarina V Silva	Oral	Liquid synapses for low power neuromorphic computing
11h15	13036	Miguel Ruiz Garcia	Oral	The fluidic memristor as a collective phenomenon in elasto-hydrodynamic networks
11h30	12905	Gaubert Pierre	Oral	Influence of Ge/Sb mixing and doping on the electronic transport properties of the phase change material Ge <sub>2</sub> Sb <sub>2</sub> Te <sub>5</sub>
11h45	12801	Giuliana Di Martino	Invited	Can we make better devices using visible light at the nanoscale?
12h15	12591	Henrique J Teixeira	Oral	Integration of 2D Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene flakes for neuromorphic resistive switching applications
12h30	12659	Maria B Grácio	Oral	MXene-based composites for neuromorphic applications

### MC 33 Memristive devices and materials for emerging computing paradigms II

Monday, 2 September, afternoon

Chair: José, Susana

Room:

Hours	ID	Name	Type	Title
16h00	12778	Markus Hellenbrand	Invited	Oxide thin film structure and interface design for neuromorphic computing
16h30	13066	Asal Kiazadeh	Invited	Exploring the Diverse Frontiers of Memristor Technology: From Neuromorphic Computing to RF Switching
17h00	13310	Sabina Spiga	Oral	Investigation of short-term memory effects in volatile electrochemical memristor for neuromorphic computing
17h15	13246	Nuno M E Silva	Oral	Resistive switching in epitaxial rhombohedral HfO <sub>2</sub> ultra-thin film

17h30	12904	Laura Bégon-Lours	Invited	Ferroelectric Synaptic Weights with Hafnia Superlattices
18h00	12978	Miguel A M Franco	Oral	Development of conductive inks and memristive active material for printed electronic applications
18h15	12492	Suman Roy	Oral	Analog-Digital Hybridity of Resistive Switching in Ion Irradiated BiFeO <sub>3</sub> Memristor for Synergistic Neuromorphic Functionality and Artificial Learning

### MC 33 Memristive devices and materials for emerging computing paradigms III

Tuesday, 3 September, morning

Chair: Sabina Spiga

Room:

Hours	ID	Name	Type	Title
10h30	13039	Liza Herrera Diez	Invited	Magneto-Ionics: Advancing Non-Volatile Control of Magnetic Properties for Neuromorphic Applications
11h00	13670	Alberto Riminucci	Invited	Glassy synaptic time dynamics in molecular La <sub>0.7</sub> Sr <sub>0.3</sub> MnO <sub>3</sub> /Ga <sub>2</sub> O <sub>3</sub> /AlO <sub>x</sub> /Co spintronic crossbar devices
11h30	13626	Rui Santos Costa	Oral	Fabrication and Characterization of Nanowire Networks for Neuromorphic Applications
11h45	13826	Diogo Miguel Caetano	Oral	Memristor-based LIF Neuron with Self-Timed Proportional Biphasic Stimulation for Hybrid Bio-CMOS Systems
12h00	13322	Juan Bisquert	Invited	Frequency and time domain properties of memristors: connecting hysteresis to the equivalent circuit characteristics
12h30	13400	Alon Ascoli	Oral	Local Activity in a Memristor Halves the Number of Dynamical Circuit Elements Necessary to Reproduce the Action Potential Life Cycle in the Hodgkin-Huxley Neuron
12h45	13598	Vivek Dey	Oral	Modeling Avalanche Dynamics in Percolative Tunneling Networks Using Network Theory