



2nd NeurONN Virtual Workshop on Neuromorphic Computing March 18th, 2022



in the frame of [DATE22 Virtual Conference](#)

Event address: <https://virtual22.date-conference.com/>

08:30 – 08:35 *Welcome Note from Organizers*
Jamila Boudaden (chair), Fraunhofer EMFT,
Germany

Eirini Karachristou (co-chair), CNRS, France

08:35 – 09:00 *NeurONN Project overview*
Aida Todri-Sanial, CNRS, LIRMM, France

Session 1: Projects related to Neuromorphic computing

09:00 – 09:30 *Photonic Neuromorphic Computing*
Frank Brückerohoff-Plückelmann,
University of Münster, Germany

09:30 – 10:00 *Algorithm-Circuits-Device Co-design for
Edge Neuromorphic Intelligence –
MEMSCALE project*
Melika Payvand,
University of Zurich and ETH Zurich,
Switzerland

10:00 – 10:30 *Coffee Break*

Session 2: Materials and Devices

10:30 – 11:10 *Modeling Unconventional Nanoscaled Device
FABrication – MUNDFAB Project*
Peter Pichler,
Fraunhofer IISB, Germany

11:10 – 11:50 *Resistance switching materials and devices for
neuromorphic computing*
Sabina Spiga,
CNR - IMM, Italy

11:50 – 12:30 *Neuromorphic devices for Analog computing*
Olivier Maher,
IBM, Switzerland

12:00 – 12:30 *Lunch Break*

Session 3: Demonstrators

13:30 – 14:00 *NeurONN live Demonstrators (CNRS/AIM)*
Madeleine Abernot, CNRS, France
Thierry Gil, CNRS, France
Theophile Gonos, A.I.Mergence, France

Session 4: Neuromorphic Architecture & Design

14:00 – 14:30 *Effect of Device Mismatches in Differential
Oscillatory Neural Networks*
Jafar Shamsi,
CSIC, Spain

14:30 – 15:00 *Machine learning for the design of wave and
oscillator-based computing devices*
Gyorgy Csaba,
Pazmany University Hungary

15:00 – 15:30 *Coffee Break*

Session 5: Neuromorphic Computing

15:30 – 16:00 *Fully spintronic radiofrequency neural networks*
Alice Mizrahi,
Thales, France

16:00 – 16:30 *Analog oscillatory neural networks for energy-
efficient computing at the edge*
Corentin Delacour,
CNRS, France

16:30 – 17:00 *Reliable Processing-in-Memory based
manycore architectures for Deep Learning:
From CNNs to GNNs*
Partha Pratim Pande,
Washington State University, USA



<https://www.neuronn.eu/>



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