



CENTER FOR  
COMPLEXITY  
& BIOSYSTEMS  
University of Milan

WORKSHOP

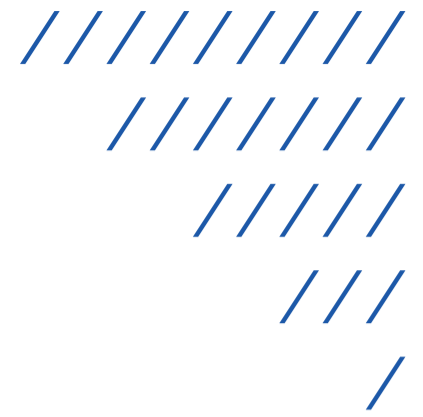


# Multi-Scale Brain Function India-Italy Network of Excellence (MSBFIINE)

---

**DECEMBER, 9<sup>TH</sup>**  
**2022** (ITALIAN TIME)

Villa Monastero — Varenna, Italy



9.00-9.10 (13.30-13.40, India-Kerala)  
**Introduction to the workshop**

**GIOVANNI NALDI**

*Department of Environmental Science and Policy,  
CC&B, University of Milan, Italy*

9.15-9.45

**Computational Reconstruction of BOLD Responses  
in the Cerebellar Granular Layer**

**SHYAM DIWAKAR**

*Mind Brain Center, Amrita Vishwa Vidyapeetham  
(Amrita University), India*

9.50-10.20

**Computing with Rhythms: The search for  
Deep Oscillatory Neural Networks**

**V SRINIVASA CHAKRAVARTHY**

*Department of Biotechnology, Indian Institute  
of Technology, Madras, India*

10.25-10.55

**Emergent movement from multiscale spino-  
musculoskeletal simulation and applications**

**MOHAN RAGHAVAN**

*Department of Biomedical Engineering, Indian Institute  
of Technology, Hyderabad, India*

10.55-11.10 (15.25-15.40, India-Kerala)  
Coffee break

11.15-11.45

**A data-driven connection strategy for modelling  
large-scale point-neuron microcircuits**

**DANIELA GANDOLFI**

*Neuromorphic Intelligence Lab, Department of  
Biomedical Metabolic and Neural Sciences &  
Center for Neuroscience and Neurotechnology,  
University of Modena and Reggio Emilia, Italy*

11.50-12.20

**Advanced modeling of cardiac myocytes**

**SERGIO SOLINAS**

*Department of Biomedical Science,  
University of Sassari, Italy*

12.25-12.55

**Experimental investigation of microcircuit  
properties: the example of cerebellar network  
activity**

**MARIALUISA TOGNOLINA**

*Department of Brain and Behavioral Sciences,  
University of Pavia, Italy*

13.00-14.00 (17.30-18.30, India-Kerala)  
Lunch time

14.00-14.30

**Investigating brain reactivity with a  
perturb-and-measure approach**

**SILVIA CASAROTTO**

*Department of Biomedical and Clinical Sciences,  
University of Milan, Milan, Italy*

*IRCCS Fondazione Don Carlo Gnocchi ONLUS, Milan, Italy*

14.35-15.05

**Information optimized multilayer  
network representation of high density  
electroencephalogram recordings**

**CATERINA LA PORTA & STEFANO ZAPPERI**

*Department of Environmental Science and Policy,  
Department of Physics, CC&B, University of Milan, Italy*

15.10-15.40

**Recalling what was there: looking at an absent  
offer location modulates neural responses in OFC**

**DEMETRIO FERRO**

*Center for Brain and Cognition and Department  
of Information and Communication Technologies,  
Universitat Pompeu Fabra, 08002 Barcelona, Spain*

15.45-16.15

**A novel multi-class logistic regression algorithm  
to reliably infer network connectivity from cell  
membrane potentials**

**THIERRY NIEUS**

*Core Facility Indaco, CC&B, University of Milan, Italy*

16.20 (20.50, India-Kerala)

Closure of the workshop, discussion about  
the next activities of the consortium