

Session Program

Sep 22 - 24, 2026

2026 INCTN + TEX meeting at SISSA

Poster session

SISSA, Aula Magna "Paolo Budinich"
Via Bonomea 265, Trieste

Tue, September 22

3:30 PM

Poster session

Poster Session | **Location:** SISSA, Aula Magna "Paolo Budinich", Via Bonomea 265, Trieste

From simplices to hyperedges: statistically validating higher-order brain interactions along a simplicial-hypergraph spectrum

Speakers

Emanuele Agrimi, Francesca Giuffrida

Dissecting the Mechanisms of Low-Intensity Focused Ultrasound Neuromodulation

Speakers

Alberto Antonietti, Daniel Ariselli, Paolo Marzolo

Hippocampal neural representation tracks exploration strategies over time

Speaker

Giulia Lorenzini

Functional significance of spine positioning across the dendritic tree of CA1 neurons

Speaker

Mattia Stefano

Run Concatenation Enhances Reliability of Dynamic Brain Measures in Resting-State fMRI

Speaker

Sara Tomasi

Intrinsic dimension estimation in large-scale neural recordings

Speaker

Michele Allegra

A Dual-Perspective Framework for Signal Propagation in Large-Scale Brain Networks: Global Spectra and Local Motifs

Speaker

Xiaoge Bao

Improving Model-to-Brain Alignment through Ecologically Motivated Image Preprocessing

Speakers

Mr Giacomo Amerio, Mr Giovanni Lucarelli, Mr Andrea Spinelli

A wiring economy tradeoff explains topological and salt-and-pepper cortical maps

Speaker

Nicola Mendini

When, and How, Does Duration Accumulation Begin and End? Behavioral Evidence in a Neurophysiological Framework

Speaker

Elif Duran

Internal Noise Reorganizes Dynamics in Recurrent Neural Networks for Robust Sensorimotor Control

Speaker

Mr Francesco Damiani

Cross-excitation between sensory neurons of the dorsal root ganglia as a signal preprocessing stage and bandwidth-redistributing active filter

Speaker

Dmitrii Perevozniuk

Emergent functional organisation and population geometry of recognition memory for numerosity in Recurrent Neural Networks

Speaker

Ms Zuzanna Szpak

Intermittent activities in an epilepsy model

Speaker

Dr Paulo Protachevich

Multiplicative Interaction Channels: decomposing how a modulatory variable reshapes interactions between neuronal populations

Speaker

Marco Celotto

Bayesian theory of task adaptation in low-rank recurrent neural networks

Speaker

Mr Lars Schutzeichel

A dynamic attractor model of overlapping engrams for associative memory

Speaker

Dr Marta Boscaglia

Discovery of Latent Clinical Phenotypes Through Optimal Transport of Brain Dynamics

Speaker

Luca Taffarello

Disentangling robust sensory-motor transformations from environmental variables in the midbrain

Speaker

Beatriz Mizusaki

Biological constraints on data-driven control of neuronal networks

Speaker

Elisa Tentori

Modelling frequency and Amplitude Dependent tACS Responses in Human Microcircuits

Speaker

Ana Paula da Silva Koltun

A Whole-Brain Dynamical Framework Linking Resting-State Activity to TMS-Evoked Responses

6:00 PM

Speaker
Michele Allegra

Wed, September 23

3:45 PM

Poster session

Poster Session | **Location:** SISSA, Aula Magna "Paolo Budinich", Via Bonomea 265, Trieste

Minimally Complex Models capture higher-order functional brain organisation across ageing and anaesthesia

Speakers

Emanuele Agrimi, Carlo Orientale Caputo

Machine Eyes on Human Brains: Computational Methods to Advance TMS-EEG Research

Speaker

Matteo De Matola

Quantifying the Complexity of Visual Textures and Its Application in Time Perception

Speaker

Mr Maxim Zewe

Modular oscillatory patterns replay and scale-free avalanches

Speaker

silvia scarpetta

Effects of recurrent connectivity on learning in networks with data-constrained synaptic plasticity

Speaker

Persia Jana Kamali

Learning to Forage in Uncertain Worlds

Speaker

Monica Paoletti

Attractor Dynamics in the Orbitofrontal Cortex Underlie Economic Decisions

Speaker

Kaining Zhang

Towards consistent and scalable whole brain effective connectivity estimation

Speaker

Benedetta Mariani

Low-rank intercomponent connectivity enables dynamic compositionality in modular threshold-linear networks

Speaker

Juliana Londono Alvarez

Texture Representations in Deep Vision Models: Comparing CNNs, Vision Transformers, and Human Perception

Speaker

Ludovica de Paolis

Age dependent effect of social isolation on anxiety , social behavior and neural substrates in zebrafish

Speaker

Safaa Mamoun Adbelmageid Ali

Learning to Explore What Doesn't Pay (Yet): Emergence of Novelty Preference in Volatile Worlds

Speaker

Daniele Tirinnanzi

A Multi-Scale Framework for Reconstructing Far-Field Auditory Brainstem Responses from Large-Scale Spiking Neural Networks

Speaker

Francesco De Santis

Beyond co-excitation: detecting assemblies of excited and inhibited neurons at different timescales.

Speaker

Michele Valla

Hierarchical visual processing in the rat lateral extrastriate cortex unfolds under natural image stimulation

Speaker

Lorenzo Tausani

Spikeling: Hands-On Neurophysiology from Experiment to Analysis

Speaker

Lucia Zanetti

A Spiking Closed-Loop Controller for Studying Cerebellar Internal Models in Motor Control

Speakers

Alberto Antonietti, Paolo Marzolo, Claudia Casellato, Daniel Ariselli

A Unified Characterization of Spatiotemporal Brain Modes through Spatial and Temporal Observables

Speaker

Dr Carles Martorell

Multimodal Inference of Communicative Intentions in Face-to-Face Interaction

Speaker

Giulia Lund

Timescale hierarchy and long-lasting working memory emerge from the dynamics of hierarchical neural assemblies

Speaker

Sara Varetti

A geometric theory of population coding across noise regimes

Speaker

Paolo Scaccia

A temporal, animal-invariant code of higher-order co-activation in mouse V1

6:00 PM

Speakers

Dr Ana Flò, Dr Matteo Biagetti

A V1 null model framework for testing sensitivity to Higher order Image statistics

Speaker

Ms Aiswarya Panikkassery