CNS*2021 Online

[F] Featured Oral [K] Keynote [O] Oral [P] Poster [T] Tutorial [W] Workshop

JUNE 28 • MONDAY			
8:00am – 11:00am	T	**SO1: Effective use of Bash** *Speakers: Felix B. Kern*	TBA
1:00pm – 4:00pm	T	**SO2: Effective use of Git** *Speakers: Ankur Sinha*	TBA
JUNE 29 • TUESDAY			
9:00am – 12:00pm	T	**SO3: Python for Beginners** *Speakers: Joe Graham, Shailesh Appukuttan, Ankur Sinha*	TBA
JUNE 30 • WEDNESDAY			
8:00am – 11:30am	T	**SA4: Methods from Data Science for Model Simulation, Analysis, and Visualization** *Speakers: Cengiz Gunay, Anca Doloc-Mihu*	TBA
11:30am – 3:00pm	T	**SA5.1: From synapses to behavior – using open data, tools, and models from the Allen Institute in computational neuroscience** *Speakers: Anton Arkhipov, Luke Campagnola, Saskia de Vries, Marina Garrett, Alex Piet, Josh Siegle*	TBA
3:00pm – 6:00pm	T	**SA3: Signal processing and data analysis in Matlab** *Speakers: Cengiz Gunay*	TBA
JULY 1 • THURSDAY			
9:00am – 11:30am	T	**SA1: Introducing the Arbor simulator: what's new and hands-on tutorial** *Speakers: Brent F. B. Huisman*	TBA
11:30am – 3:00pm	T	**SA5.2: From synapses to behavior – using open data, tools, and models from the Allen Institute in computational neuroscience** *Speakers: Anton Arkhipov, Luke Campagnola, Saskia de Vries, Marina Garrett, Alex Piet, Josh Siegle*	TBA
JULY 2 • FRIDAY			
11:00am – 2:00pm	T	**SA2: Building, validating, analysing, and simulating standardised computational models using NeuroML** *Speakers: Ankur Sinha, Angus Silver, Padraig Gleeson*	TBA
JULY 3 • SATURDAY			
PINNED 8:00am – 9:00am	K	**K1: The cerebral cortex, a delay coupled oscillator network: Computations in high dimensional dynamic space** *Moderators: Christiane Linster* *Speakers: Wolf Singer*	TBA
9:00am – 12:00pm	T	**T3: Understanding early visual receptive fields from efficient coding principles** *Speakers: Li Zhaoping*	TBA
9:00am – 12:00pm	T	**T4: Interactive design and analysis of point neuron spiking networks with synaptic plasticity using NEST Simulator** *Speakers: Charl Linssen, Barna Zajzon, Sebastian Spreizer, Jasper Albers, Dennis Terhorst*	TBA

10:00am – 4:00pm	T	**T1: Building biophysically detailed neuronal models from molecules to networks with NEURON and NetPyNE** *Speakers: Robert A McDougal, Adam JH Newton, Dr. Salvador Dura-Bernal, William W Lytton*	TBA
1:00pm – 4:00pm	T	**T2: Recurrent Neural Networks dynamics and software implementation with Keras and TensorFlow** *Speakers: Cecilia Jarne*	TBA
PINNED 4:00pm – 5:00pm	K	**Discussion for K1: The cerebral cortex, a delay coupled oscillator network: Computations in high dimensional dynamic space** *Moderators: Christiane Linster* *Speakers: Wolf Singer*	TBA
5:00pm – 5:30pm	T	**S1: GPU enhanced Neuronal Networks – GeNN** *Speakers: Thomas Nowotny, James C Knight*	Crowdcast (Showcases)
5:30pm – 6:00pm	T	**S2: Simulating spiking neural networks with the Brian 2 simulator** *Speakers: Marcel Stimberg, Dan Goodman*	Crowdcast (Showcases)
6:00pm – 6:30pm	T	**S3: CompNeuroFedora - a community developed Free/Open Source Operating System for computational neuroscience** *Speakers: Ankur Sinha*	Crowdcast (Showcases)
6:30pm – 7:00pm	T	**S4: Introduction to the Brain Dynamics Toolbox** *Speakers: Stewart Heitmann*	Crowdcast (Showcases)
7:00pm – 7:30pm	T	**S5: Tools for Leveraging Feature-Based Time-Series Analysis to Characterize Neural Dynamics** *Speakers: Ben D Fulcher*	Crowdcast (Showcases)
7:30pm – 8:00pm	T	**S6: Correcting for Autocorrelation-induced Bias in Linear-dependence Measures: with Applications to Functional Connectivity Analysis** *Speakers: Oliver Cliff*	Crowdcast (Showcases)

[F] Featured Oral [K] Keynote [O] Oral [P] Poster [T] Tutorial [W] Workshop

JULY 4 • SUNDAY

PINNED 8:00am – 9:00am	K	**K2: Correlations, Scaling and Dimensionality** *Moderators: Steven Prescott* *Speakers: Bill Bialek*	TBA
9:20am – 10:00am	F	**FO1: Cortical oscillations support sampling-based computations in spiking neural networks** *Speakers: Andreas Baumbach*	TBA
10:00am – 10:20am	O	**O1: Computation through spiking dynamics of an E-I network with predictive coding** *Speakers: Veronika Koren*	TBA
10:20am – 10:40am	O	**O2: Self-Healing Neural Codes** *Speakers: Michael Rule*	TBA
10:40am – 11:00am	O	**O3: A neuron-to-network-to-neuron computational model of state-dependent computation in the hypothalamus** *Speakers: Samuel Mestern*	TBA
11:00am – 11:20am	O	**O4: Cortex-wide dynamics of intrinsic electrical activities: propagating waves and their interactions** *Speakers: Yuqi Liang*	TBA
11:40am – 12:20pm	F	**FO2: Branch specific Dendritic Computation in a Purkinje Cell** *Speakers: Gabriela Capo Rangel*	TBA
12:20pm – 12:40pm	O	**O5: A computational model of the dopaminergic modulation of hippocampal Schaffer collateral-CA1 long-term plasticity** *Speakers: Gautam Kumar*	TBA
12:40pm – 1:00pm	O	**O6: Age-dependent increase of sag current in human pyramidal neurons dampens noise in cortical sensory processing** *Speakers: Alexandre Guet McCreight*	TBA
1:00pm – 1:20pm	O	**O7: Astrocytic modulation of synaptic transmission and plasticity in developing somatosensory cortex** *Speakers: Tiina Manninen*	TBA
1:20pm – 1:40pm	O	**O8: Dynamics of Ramping Bursts in a Respiratory Neuron Model** *Speakers: Muhammad Abdulla*	TBA
PINNED 2:00pm – 3:00pm	K	**Discussion for K2: Correlations, Scaling and Dimensionality** *Moderators: Steven Prescott* *Speakers: Bill Bialek*	TBA
3:00pm – 4:00pm	P	**P10: A cellular automata model of the hippocampo-septal pacemaker circuit** *Speakers: Ashraya Samba Shiva*	TBA
3:00pm – 4:00pm	P	**P11: Phase response curve of the excitatory-inhibitory neuronal populations and its role in the coherent oscillation of inter-connected brain regions** *Speakers: Aref Pariz*	TBA
3:00pm – 4:00pm	P	**P13: Closed-loop stimulation guided by minimal codes in the sequential activity of weakly electric fish** *Speakers: Angel Lareo*	TBA

3:00pm – 4:00pm	P	**P147: Computational dendritic repair mechanism for human and nonhuman neurons based on optimal wiring considerations** *Speakers: Moritz Groden*	TBA
3:00pm – 4:00pm	P	**P15: Slow oscillations in mice show a rich club structure inside time evolving chimera states** *Speakers: Andrea Insabato*	TBA
3:00pm – 4:00pm	P	**P161: Bayesian computations in recurrent spiking neural networks trained to discriminate time intervals.** *Speakers: Luis Serrano-Fernandez*	TBA
3:00pm – 4:00pm	P	**P16: Effect of infrared laser stimulation in single neurons: experimental and modeling study** *Speakers: Alicia Garrido-Peña*	TBA
3:00pm – 4:00pm	P	**P17: Open Source Brain v2.0: closing the loop between experimental neuroscience data and computational models** *Speakers: Ankur Sinha*	TBA
3:00pm – 4:00pm	P	**P18: Tau from no Tau: Temporal dynamics of Na+ pump mediated memory traces** *Speakers: Astrid A. Prinz*	TBA
3:00pm – 4:00pm	P	**P19: Neuroscience Gateway Enabling large scale modeling, data processing and software dissemination** *Speakers: Amitava Majumdar*	TBA
3:00pm – 4:00pm	P	**P1: Amplitude and phase coupling optimize information transfer between brain networks that function at criticality** *Speakers: Arthur-Ervin Avramiea*	TBA
3:00pm – 4:00pm	P	**P20: A role of receptor desensitization, feedback loops and spontaneous activity in astrocyte calcium responses** *Speakers: Andrew Liu*	TBA
3:00pm – 4:00pm	P	**P21: Detection of visual information processing regions from high-density EEG data** *Speakers: Anna Pidnebesna*	TBA
3:00pm – 4:00pm	P	**P22: Cortical thickness as predictor of performance enhancement in complex real-time strategy game training** *Speakers: Anna Kovbasiuk*	TBA
3:00pm – 4:00pm	P	**P23: Modelling a Central Pattern Generator using capacitively coupled Nano-oscillators** *Speakers: Akhil Bonagiri*	TBA
3:00pm – 4:00pm	P	**P24: Uncovering the invariant structural organization of the human connectome** *Speakers: Anand Pathak*	TBA
3:00pm – 4:00pm	P	**P25: Astrocytes can sharpen spatial patterns in neuronal networks by restricting synaptic volume** *Speakers: Alla Borisyuk*	TBA
3:00pm – 4:00pm	P	**P26: Dendritic normalisation improves learning in sparsely connected artificial neural networks** *Speakers: Alexander Bird*	TBA
3:00pm – 4:00pm	P	**P27: Mechanisms of Flexible Information Sharing Through Noisy Oscillations.** *Speakers: Arthur Powanwe*	TBA
3:00pm – 4:00pm	P	**P2: EEG based Emotion Recognition while Playing Computer Games** *Speakers: Ashish Kumar Shrivastava*	TBA

3:00pm – 4:00pm	P	**P3: Frequency filter interactions in networks of non-oscillatory cells** *Speakers: Andrea Bel*	TBA
3:00pm – 4:00pm	P	**P4: Modeling of Neural Action Potential Generation in the Electron-Diffusion Regime** *Speakers: Ahmed Hamzah*	TBA
3:00pm – 4:00pm	P	**P5: Audio Frequency Spike Encoding Methods Evaluation through Mutual Information** *Speakers: Ahmad El Ferdaoussi*	TBA
3:00pm – 4:00pm	P	**P6: Sleep Latency Modulates the Relationships between Adaption-Innovation and Resting-State EEG Microstates** *Speakers: Yiyuan Tang*	TBA
3:00pm – 4:00pm	P	**P8: Conduction delays in myelinated axons with variable nodal and internodal lengths** *Speakers: Afroditi Talidou*	TBA
3:00pm – 4:00pm	P	**P9: Behaviorally Relevant Spatio-Temporal Spike Patterns in Parallel Spike Trains** *Speakers: Alessandra Stella*	TBA
4:00pm – 5:00pm	P	**P14: Closed-loop Temporal Code-Driven Stimulation implemented and tested using Real-Time eXperimental Interface (RTXI)** *Speakers: Angel Lareo*	TBA
4:00pm – 5:00pm	P	**P28: Segregation, integration and balance of large-scale resting brain networks configure different cognitive abilities** *Speakers: Changsong Zhou*	TBA
4:00pm – 5:00pm	P	**P29: Bayesian mechanics in the brain: a continuous-state formulation of active inference** *Speakers: Chang-Sub Kim*	TBA
4:00pm – 5:00pm	P	**P30: Computational modelling of a mouse layer 5 pyramidal neuron using genetic ion channels** *Speakers: Darshan Mandge*	TBA
4:00pm – 5:00pm	P	**P31: Odor-evoked Increases in Olfactory Bulb Mitral Cell Spiking Variability** *Speakers: Cheng Ly*	TBA
4:00pm – 5:00pm	P	**P32: A general approach to characterize structured synchronization processes in spiking neural networks based on an adaptive synchronization measure** *Speakers: Denis Zakharov*	TBA
4:00pm – 5:00pm	P	**P33: A Reinforcement Learning Approach to Model Evidence Accumulation of Decision Making** *Speakers: Sai Kalyan Ranga Singanamalla*	TBA
4:00pm – 5:00pm	P	**P34: The Emergence of Computational Capacity in Developing Biological Neural Networks** *Speakers: David Shorten*	TBA
4:00pm – 5:00pm	P	**P35: Frequency-resolved Connectivity Disturbances in First-Episode Psychosis** *Speakers: Christoph Metzner*	TBA
4:00pm – 5:00pm	P	**P36: Whole-Brain Modelling Suggest Mechanisms Behind Pro-Segregation Effects of Cholinergic Neuromodulation** *Speakers: Carlos Coronel*	TBA
4:00pm – 5:00pm	P	**P37: A biochemical mechanism for time-encoding memory formation within individual synapses of Purkinje cells** *Speakers: Ayush Mandwal*	TBA
4:00pm – 5:00pm	P	**P38: A study on Recurrent Neural Networks trained with excitatory-inhibitory constraint** *Speakers: Cecilia Jarne*	TBA

4:00pm – 5:00pm	P	**P39: Evoking orientation-tuned activity in a spiking model of cat V1 with optical stimulation** *Speakers: David Berling*	TBA
4:00pm – 5:00pm	P	**P40: Gap junctions shape the intervals that build robust sequences in a central pattern generator model** *Speakers: Blanca Berbel*	TBA
4:00pm – 5:00pm	P	**P41: Astrocyte-neuron interaction through the extracellular ionic composition** *Speakers: Carter Johnson*	TBA
4:00pm – 5:00pm	P	**P42: Neuronal heterogeneity underlies electrical synapse asymmetry and spike time variability in coupled neurons** *Speakers: Austin Mendoza*	TBA
4:00pm – 5:00pm	P	**P43: Profiling cell-type responses to external stimulation** *Speakers: Daniel Trotter*	TBA
4:00pm – 5:00pm	P	**P44: Modelling Working Memory using Deep Convolutional Elman and Jordan Neural Networks** *Speakers: Dhruv Chopra*	TBA
4:00pm – 5:00pm	P	**P45: Role of realistic connectivity patterns in shaping learning in the mushroom body** *Speakers: Daniel Zavitz*	TBA
4:00pm – 5:00pm	P	**P46: A Neuroanatomically-Based Model for Trichromatic Color Sensations** *Speakers: Charles Q. Wu*	TBA
4:00pm – 5:00pm	P	**P47: Impact of Sodium Channel Distribution in the Axon Initial Segment on the Initiation and Backpropagation of Action Potentials*** *Speakers: Benjamin Barlow*	TBA
4:00pm – 5:00pm	P	**P48: Signal denoising through modular topography** *Speakers: Barna Zajzon*	TBA
4:00pm – 5:00pm	P	**P49: Linking acute stress and heart rate variability in daily life while ac-counting for physical activity ‚Äì a machine learning approach** *Speakers: Benedikt Jordan*	TBA
4:00pm – 5:00pm	P	**P50: Computational Modeling of Electrophysiological Properties in Urethral Smooth Muscle Cell** *Speakers: Chitaranjan Mahapatra*	TBA
4:00pm – 5:00pm	P	**P51: AnalySim: A web platform for collaborative data sharing and analysis** *Speakers: Cengiz Gunay*	TBA
4:00pm – 5:00pm	P	**P52: From structure to dynamics in combinatorial threshold linear networks** *Speakers: Caitlin Lienkaemper*	TBA
4:00pm – 5:00pm	P	**P53: Electrophysiological models of pig right atrial ganglionic plexus (RAGP) neurons derived from transcriptomics** *Speakers: Suranjana Gupta*	TBA
5:00pm – 6:00pm	P	**P54: Gap Junction Conductance Non-monotonically determines Action Potential Propagation** *Speakers: Erin Munro Krull*	TBA
5:00pm – 6:00pm	P	**P55: Effects of heterogeneous inputs on cortical activity in medium-scale neuronal networks on chip** *Speakers: Francesca Callegari*	TBA

5:00pm – 6:00pm	P	**P56: The effect of ephaptic coupling on signal transmission in peripheral nerve bundles** *Speakers: Helmut Schmidt*	TBA
5:00pm – 6:00pm	P	**P57: A decision-making model with anticipation of surprise for explaining ‚Äòirrational‚Äô economic behaviors** *Speakers: Ho Ka Chan*	TBA
5:00pm – 6:00pm	P	**P58: Signal Encoding Enhanced by Recurrent Noise** *Speakers: Gregory Knoll*	TBA
5:00pm – 6:00pm	P	**P59: Individual variability in the human connectome maintains selective cross-modal consistency and shares microstructural signatures** *Speakers: Esin Karahan*	TBA
5:00pm – 6:00pm	P	**P60: Biomarkers of reduced inhibition in human cortical microcircuit signals in depression** *Speakers: Frank Mazza*	TBA
5:00pm – 6:00pm	P	**P61: Network model provides insights into entorhinal cortex mechanisms of theta generation** *Speakers: Ines Guerreiro*	TBA
5:00pm – 6:00pm	P	**P62: Multi-scale spiking network model of human cortex** *Speakers: Jari Pronold*	TBA
5:00pm – 6:00pm	P	**P63: A non-linear evidence accumulation model that accounts for single-trial dynamics** *Speakers: Isabelle Hoxha*	TBA
5:00pm – 6:00pm	P	**P64: Local homeostatic regulation of the spectral radius of echo-state networks** *Speakers: Fabian Schubert*	TBA
5:00pm – 6:00pm	P	**P65: Neuronal oscillations level sets for activity constancy: from single neurons to networks** *Speakers: Guillermo Villanueva*	TBA
5:00pm – 6:00pm	P	**P66: Stability and Predictability Code in Higher-Order Neuronal Correlations** *Speakers: Emili Balaguer-Ballester*	TBA
5:00pm – 6:00pm	P	**P67: Retrospective inference in online structure learning: a simulation study** *Speakers: Francesco Silvestrin*	TBA
5:00pm – 6:00pm	P	**P68: Alteration of astrocytic glutamate transporters can drive a multistage progression of Alzheimer‚Äôs disease** *Speakers: Giulio Bonifazi*	TBA
5:00pm – 6:00pm	P	**P69: Modeling the dynamics of partially known systems via the integration of a system of ordinary differential equations into a recurrent neural network** *Speakers: Domas Linkevicius*	TBA
5:00pm – 6:00pm	P	**P70: Stress-induced changes on CRH neurons and homeostatic response at the Paraventricular Nucleus of the Hypothalamus** *Speakers: Ewandson Lameu*	TBA
5:00pm – 6:00pm	P	**P71: Recurrent connectivity controls the ability of inhibitory synaptic plasticity to produce E/I co-tuning.** *Speakers: Emmanouil Giannakakis*	TBA
5:00pm – 6:00pm	P	**P72: Simulation of the somatosensory cortex microcircuit in NetPyNE** *Speakers: Fernando Borges*	TBA

5:00pm – 6:00pm	P	**P73: Revealing the Link between Spiking Cross-Correlation Patterns and the Underlying Subthreshold Neuronal Dynamics** *Speakers: Horacio Rotstein*	TBA
5:00pm – 6:00pm	P	**P74: Sleep prevents catastrophic forgetting in spiking neural networks by forming joint synaptic weight representations** *Speakers: Jean Erik Delanois*	TBA
5:00pm – 6:00pm	P	**P75: Recruitment profiles produced by intrafascicular stimulation of peripheral nerve fibers** *Speakers: Morteza Rouhani, Jimmy Abbas*	TBA
5:00pm – 6:00pm	P	**P76: Emergence of high order interactions in a model of neural oscillators** *Speakers: Fernando Lehue*	TBA
5:00pm – 6:00pm	P	**P77: Control of bursting activity based on interaction of Na+/K+ pump with persistent sodium current** *Speakers: Gennady Cymbalyuk*	TBA
5:00pm – 6:00pm	P	**P78: A brain-inspired meta-reinforcement learning inhibition cognitive control for artificial agents in a conflictual decision-making task** *Speakers: Federica Robertazzi*	TBA
5:00pm – 6:00pm	P	**P79: Combined effect of chemical and electrical synapses in coupled inhibitory neurons results in emergence of persistent activity** *Speakers: Janaki Raghavan*	TBA
6:00pm – 7:00pm	P	**P100: Effects of ih-current modulation in a pyramidal tract projecting cell model** *Speakers: Joao Moreira*	TBA
6:00pm – 7:00pm	P	**P101: Synaptic pulse duration determines phase difference between asymmetrically coupled oscillators** *Speakers: Joel Tabak*	TBA
6:00pm – 7:00pm	P	**P102: Topological data analysis of spontaneous activity in the zebrafish optic tectum** *Speakers: Joshua Paik*	TBA
6:00pm – 7:00pm	P	**P103: TLN counters, position trackers and central pattern generators** *Speakers: Juliana Londono Alvarez*	TBA
6:00pm – 7:00pm	P	**P104: Going beyond the point neuron: active dendrites and sparse representations for continual learning** *Speakers: Karan Grewal*	TBA
6:00pm – 7:00pm	P	**P105: Tangent space projections of optimally regularized Functional Connectomes improve their phenotypic reliability as measured by their fingerprint** *Speakers: Kausar Abbas*	TBA
6:00pm – 7:00pm	P	**P106: Modelling the neurophysiology of sleep development over the first five years of life** *Speakers: Lachlan Webb*	TBA
6:00pm – 7:00pm	P	**P80: Systematic Perturbation of an Artificial Neural Network: A Step Towards Quantifying Causal Contributions in The Brain** *Speakers: Kayson Fakhar*	TBA
6:00pm – 7:00pm	P	**P81: Gating null and potent modes of propagation in a feedforward model of cortical activity** *Speakers: Jean-Philippe Thivierge*	TBA

6:00pm – 7:00pm	P	**P82: Does reward positivity encode trial-by-trial reward prediction error? A model-based EEG analysis** *Speakers: Ka Chun Wu*	TBA
6:00pm – 7:00pm	P	**P83: Long-Term Stability of Memories Independent of any Form of Replay** *Speakers: Jonas Neuhöfer*	TBA
6:00pm – 7:00pm	P	**P84: An integrative framework for dynamic causal modeling of neural circuitry using multiscale, multimodal measurements** *Speakers: Jiyoung Kang*	TBA
6:00pm – 7:00pm	P	**P85: Oscillatory Network Model to understand theta-sequences in one-dimensional motion** *Speakers: Kushal Reddy*	TBA
6:00pm – 7:00pm	P	**P86: A simple computational model of increased olfactory bulb network oscillations with synaptic degradation** *Speakers: Kendall Berry*	TBA
6:00pm – 7:00pm	P	**P87: Correlation structure between brain regions in working-memory tasks: fMRI fractal and spectral analysis** *Speakers: Jeremi Ochab*	TBA
6:00pm – 7:00pm	P	**P88: Energy Adaptive Reinforcement Learning** *Speakers: Jiamu Jiang*	TBA
6:00pm – 7:00pm	P	**P89: Kenyon cells sensitivity control through thresholds tuning improves the discrimination capacity of the insect olfactory system** *Speakers: Jessica L√≥pez-Hazas Sacrist√°n*	TBA
6:00pm – 7:00pm	P	**P90: Extracellular stimulation and LFP recording in a L5 PC model with full axonal arbor** *Speakers: Joseph Tharayil*	TBA
6:00pm – 7:00pm	P	**P91: Neural Circuits of Human Prediction Error Computation Across Valences and Tasks** *Speakers: Jessica Mollick*	TBA
6:00pm – 7:00pm	P	**P92: Enhanced ensemble computational models of mouse thoracic sympathetic postganglionic neurons with offline compensation of electrode artifacts** *Speakers: Krishna Pusuluri*	TBA
6:00pm – 7:00pm	P	**P93: Altered intrinsic excitability impairs synaptic plasticity at Schaffer-collateral synapses on hippocampal CA1 pyramidal neuron in Alzheimer‚Äôs disease** *Speakers: Justinas Dainauskas*	TBA
6:00pm – 7:00pm	P	**P94: Prediction of clinical symptoms based on global cortical thinning patterns in Parkinson's disease** *Speakers: Saeko Kikuchi, Masanori Shimono*	TBA
6:00pm – 7:00pm	P	**P95: Linking hippocampal replay content to neuronal properties through modeling** *Speakers: Jordan Breffle*	TBA
6:00pm – 7:00pm	P	**P96: Long-lasting desynchronization using randomized spatio-temporal stimulus patterns** *Speakers: Justus Kromer*	TBA
6:00pm – 7:00pm	P	**P97: A novel meta-analytic web application for multimodal neuroscientific data integration and analysis** *Speakers: Krishna Praneeth Kilambi*	TBA

6:00pm – 7:00pm	P	**P98: Combining fMRI with computational modeling to explore the influence of attention on human auditory cortex** *Speakers: Kabir Arora*	TBA
6:00pm – 7:00pm	P	**P99: A ring model based on dendritic bistability** *Speakers: Jiacheng Xu*	TBA

[F] Featured Oral [K] Keynote [O] Oral [P] Poster [T] Tutorial [W] Workshop

JULY 5 • MONDAY

PINNED 8:00am – 9:00am	K	**K3: Advances in Computational Psychiatry: Understanding Cognitive Control as a Network Process** *Moderators: Julie Haas* *Speakers: Danielle Bassett*	TBA
9:20am – 10:00am	F	**FO3: Salience of low-frequency entrainment to visual signal for classification points to predictive processing in sign language** *Speakers: Evguenia Malaia*	TBA
10:00am – 10:20am	O	**O9: Non-synaptic interactions between olfactory receptor neurons, a possible keyfeature of odor processing in insects** *Speakers: Mario Pannunzi*	TBA
10:20am – 10:40am	O	**O10: Structure in the population code increases along the auditory cortical hierarchy** *Speakers: Clélia De Mulatier*	TBA
10:40am – 11:00am	O	**O11: Striatal compartments participate in multi-modal and concurrent reward-based learning** *Speakers: William Barnett*	TBA
11:00am – 11:20am	O	**O12: Unsupervised identification of space-, time-, and action-dependent latent factors underlying muscle activity during reaching** *Speakers: Alessandro Salatiello*	TBA
11:40am – 12:20pm	F	**FO4: Lost neural heterogeneity in human epilepsy is a fundamental principle unifying epileptic etiologies** *Speakers: Scott Rich*	TBA
12:20pm – 12:40pm	O	**O13: Prevention of post-traumatic epilepsy through sustained network depolarization** *Speakers: Oscar Gonzalez*	TBA
12:40pm – 1:00pm	O	**O14: On the role of arkypallidal and prototypical neurons for neural synchronization in the basal ganglia** *Speakers: Richard Gast*	TBA
1:00pm – 1:20pm	O	**O15: Larger inter-individual variability of large-scale brain organization in schizophrenia revealed by topological data analsis** *Speakers: Emil Dmitruk*	TBA
1:20pm – 1:40pm	O	**O16: Fluctuating inter-regional delays in the human cerebral cortex** *Speakers: Joon-Young Moon*	TBA
PINNED 2:00pm – 3:00pm	K	**Discussion for K3: Advances in Computational Psychiatry: Understanding Cognitive Control as a Network Process** *Moderators: Julie Haas* *Speakers: Danielle Bassett*	TBA
3:00pm – 4:00pm	P	**P107: Topological properties of mouse neuronal populations** *Speakers: Margarita Zaleshina*	TBA
3:00pm – 4:00pm	P	**P108: Reconciling forgetting and memory consolidation: simulating the dissociable effects of neuronal noise levels on cortical memory traces.** *Speakers: Max Garagnani*	TBA

3:00pm – 4:00pm	P	**P109: Modelling the effect of deep brain stimulation on cortico-subcortical networks in the context of freezing of gait in Parkinson‚Äôs Disease** *Speakers: Mariia Popova*	TBA
3:00pm – 4:00pm	P	**P110: Advancing neuroscience education without borders: neuroscience community training resources at INCF** *Speakers: Malin Sandström*	TBA
3:00pm – 4:00pm	P	**P111: Building somatosensory cortex neuron models using a workflow for the creation, validation and generalization of biophysically detailed cell models** *Speakers: Maria Reva*	TBA
3:00pm – 4:00pm	P	**P112: One-shot learning of static and sequential patterns with Extreme Neural Machines** *Speakers: Jean-Philippe Thivierge*	TBA
3:00pm – 4:00pm	P	**P113: Inferring Inter-Columnar Connectivity from Sparse Activity Data** *Speakers: Linus Lauer*	TBA
3:00pm – 4:00pm	P	**P114: Embedded Chimera States in Recurrent Neural Networks** *Speakers: Maria Masoliver*	TBA
3:00pm – 4:00pm	P	**P115: Reproducing asymmetrical spine shape fluctuations in a model of actin dynamics predicts self-organized criticality** *Speakers: Michael Fauth*	TBA
3:00pm – 4:00pm	P	**P116: Drifting Memories: spontaneous long-term evolution of memory representations in the hippocampus** *Speakers: Lars Bollmann*	TBA
3:00pm – 4:00pm	P	**P117: Detailed biophysical modeling of CA1 pyramidal cells in a mouse model of Alzheimer's disease suggests origin of hyperexcitability** *Speakers: Martin Mittag*	TBA
3:00pm – 4:00pm	P	**P118: Modeling intermittent synchronization of gamma-band neural oscillations** *Speakers: Leonid Rubchinsky*	TBA
3:00pm – 4:00pm	P	**P119: The impact of neuronal noise statistics on binocular rivalry dynamics** *Speakers: Maria Inês Cravo*	TBA
3:00pm – 4:00pm	P	**P121: Modeling homo- and heterosynaptic plasticity using a new reduced-morphology model of CA1 pyramidal cells** *Speakers: Matus Tomko*	TBA
3:00pm – 4:00pm	P	**P122: Neural models for the cross-species recognition of dynamic facial expressions** *Speakers: Michael Stettler*	TBA
3:00pm – 4:00pm	P	**P123: Nonlinear optimal control of neural populations** *Speakers: Lena Salfenmoser*	TBA
3:00pm – 4:00pm	P	**P124: Parameter adaptation of hybrid circuits by online exploration driven by genetic algorithms** *Speakers: Manuel Reyes-Sanchez*	TBA
3:00pm – 4:00pm	P	**P125: Computational modelling of ictogenicity to inform photosensitive epilepsy from interictal EEG** *Speakers: Marinho Lopes*	TBA
3:00pm – 4:00pm	P	**P126: Entorhinal Modules As Graph-Learning Systems** *Speakers: Marcus Lewis*	TBA
3:00pm – 4:00pm	P	**P127: A Neuromorphic Application to Keyword Recognition** *Speakers: Michael Helde*	TBA

3:00pm – 4:00pm	P	**P128: A closed form equation for extracellular field at a point for time series simulation in diffuse structures.** *Speakers: Leonid Fedorov*	TBA
3:00pm – 4:00pm	P	**P129: A minimal integrate-and-fire model for Mossy Cells** *Speakers: Mauricio Girardi-Schappo*	TBA
3:00pm – 4:00pm	P	**P130: Fast and slow inhibition on cortical spatiotemporal complexity in a computational model of the cerebral cortex** *Speakers: Leonardo Dalla Porta*	TBA
3:00pm – 4:00pm	P	**P131: Fitting neural models to experimental data with Brian 2** *Speakers: Marcel Stimberg*	TBA
3:00pm – 4:00pm	P	**P132: A dynamics-based approach to thresholding tractography-based connectomes** *Speakers: Luc Berthouze*	TBA
3:00pm – 4:00pm	P	**P133: Dynamics and trainability of recurrent neural networks with partial symmetry and antisymmetry** *Speakers: Matthew Ding*	TBA
3:00pm – 4:00pm	P	**P134: Mixed vine copula flows for flexible modelling of neural dependencies** *Speakers: Lazaros Mitskopoulos*	TBA
3:00pm – 4:00pm	P	**P137: Understanding degeneracy and redundancy using variational free energy** *Speakers: Noor Sajid*	TBA
4:00pm – 5:00pm	P	**P135: A network model for migraine-driven alterations in the contrast sensitivity of rodent visual cortex** *Speakers: Nicolo Meneghetti*	TBA
4:00pm – 5:00pm	P	**P136: An ISI study of the Stochastic ML burster** *Speakers: Peter Rowat, Priscilla Greenwood*	TBA
4:00pm – 5:00pm	P	**P138: Determinants of pattern recognition in a network model of cerebellar cortex** *Speakers: Ohki Katakura*	TBA
4:00pm – 5:00pm	P	**P139: A Biophysical Spectral Graph Theory-Based Model for Brain Oscillations** *Speakers: Parul Verma*	TBA
4:00pm – 5:00pm	P	**P140: Semantization of episodic memory in a spiking cortical attractor network model** *Speakers: Nikolaos Chrysanthidis*	TBA
4:00pm – 5:00pm	P	**P141: Multistability of coherent states in ring networks of type II neurons with asymmetrical nonlocal inhibitory connectivity** *Speakers: Olesia Dogonasheva*	TBA
4:00pm – 5:00pm	P	**P142: Properties of Drosophila Noxious-Cold Sensing Neurons Encoding Rate and Magnitude of Change in Temperature** *Speakers: Natalia Maksymchuk*	TBA
4:00pm – 5:00pm	P	**P143: Analyzing the differences in olfactory bulb spiking with ortho- and retronasal stimulation** *Speakers: Michelle Craft*	TBA
4:00pm – 5:00pm	P	**P144: Modelling the Effects of the Perforant Path in the Recall Performance of a CA1 Microcircuit with Excitatory and Inhibitory Neurons** *Speakers: Nikolaos Andreakos*	TBA
4:00pm – 5:00pm	P	**P145: Surrogate methods for spike pattern detection in non-Poisson data** *Speakers: Peter Bouss*	TBA

4:00pm – 5:00pm	P	**P146: Outlining contextual settings for rule learning through a probabilistic category learning task** *Speakers: Nicholas Menghi*	TBA
4:00pm – 5:00pm	P	**P148: Stimulus-independent neural assembly interactions across brain regions** *Speakers: Michele Nardin*	TBA
4:00pm – 5:00pm	P	**P149: Dopamine activity plays a double role in improving perception and signaling motivation in a working memory task** *Speakers: Joan Falco-Roget*	TBA
4:00pm – 5:00pm	P	**P150: Dynamic synchronization between electrically coupled cells of central pattern generators** *Speakers: Pablo S√°nchez-Mart√≠n*	TBA
4:00pm – 5:00pm	P	**P151: Neural-ECM interactions in small scale networks** *Speakers: Nicolangelo Iannella*	TBA
4:00pm – 5:00pm	P	**P152: Quantification of the network strength in neural anticipated and delayed synchronization** *Speakers: Monserrat Pallares Di Nunzio*	TBA
4:00pm – 5:00pm	P	**P153: A physiologically realistic computational model of the basal ganglia network.** *Speakers: Nathalie Azevedo Carvalho*	TBA
4:00pm – 5:00pm	P	**P154: Intrinsic and parameter-less gain control in rate coding by spiking neurons** *Speakers: Nirag Kadakia*	TBA
4:00pm – 5:00pm	P	**P155: Neurodynamical model for the visual recognition of dynamic bodies** *Speakers: Prerana Kumar*	TBA
4:00pm – 5:00pm	P	**P156: Influence of the connectivity on the synchronization of two coupled neuronal networks** *Speakers: Paulo Ricardo Protachevicz*	TBA
4:00pm – 5:00pm	P	**P157: Working Memory Stabilization by Sinusoidal and Noisy Inputs** *Speakers: Nikita Novikov*	TBA
4:00pm – 5:00pm	P	**P158: Dimensionality Reduction Methods for Neural Decoding** *Speakers: Alan Cherne*	TBA
4:00pm – 5:00pm	P	**P159: Bayesian brains and the Renyi divergence** *Speakers: Noor Sajid*	TBA
4:00pm – 5:00pm	P	**P160: Approximating transient dynamics of hippocampal ripple oscillations in an inhibitory network model** *Speakers: Natalie Schieferstein*	TBA
4:00pm – 5:00pm	P	**P162: Role of sleep in formation of indirect memory associations** *Speakers: Oscar Gonzalez*	TBA
4:00pm – 5:00pm	P	**P163: The Role of Hyperpolarization-Activated Current in the Production of Episodic Bursting by a Half-Center Oscillator** *Speakers: Gennady Cymbalyuk*	TBA
5:00pm – 6:00pm	P	**P164: Classification of large-scale brainwaves in brain network models with heterogeneous time delays** *Speakers: Sebastian Raison*	TBA
5:00pm – 6:00pm	P	**P165: Impact of electrode placement on spiking probability of a stimulated human auditory nerve fiber** *Speakers: Thomas Tanzer*	TBA

5:00pm – 6:00pm	P	**P166: Feedback and Feedforward Model in Motion Anticipation** *Speakers: Qi-Rong Lin*	TBA
5:00pm – 6:00pm	P	**P167: Stochastic Axons in the Mammalian Brain** *Speakers: Skirmantas Janusonis*	TBA
5:00pm – 6:00pm	P	**P168: A robust spike counter for automatic detection of interictal eplileptiform discharges before seizure onset** *Speakers: Swati Banerjee*	TBA
5:00pm – 6:00pm	P	**P169: Optimal Stimulation of Spiking Neuron using Reinforcement Learning: Single Neuron Study** *Speakers: Sai Kalyan Ranga Singanamalla*	TBA
5:00pm – 6:00pm	P	**P170: Mapping and Validating the LIF Model on Intel's Loihi** *Speakers: Srijanie Dey*	TBA
5:00pm – 6:00pm	P	**P171: Computational modeling of age-dependent tonic inhibition in the cerebellar granule cells in a network context** *Speakers: Sungho Hong*	TBA
5:00pm – 6:00pm	P	**P172: Synchronization through uncorrelated noise in excitatory-inhibitory networks** *Speakers: Christoph Metzner*	TBA
5:00pm – 6:00pm	P	**P173: Replicating Bursting Neurons that Signal Input Slopes with Izhikevich Neurons** *Speakers: Rebecca Miko*	TBA
5:00pm – 6:00pm	P	**P174: Traveling waves in the prefrontal cortex during working memory** *Speakers: Sayak Bhattacharya*	TBA
5:00pm – 6:00pm	P	**P175: Model of neuronal activity coupled to energy resources generates neonatal burst suppression** *Speakers: Shrey Dutta*	TBA
5:00pm – 6:00pm	P	**P176: Cognitive demand of visuomotor task depends on information rate** *Speakers: Sze Ying Lam*	TBA
5:00pm – 6:00pm	P	**P177: Phase and amplitude coupling of high-frequency oscillations in seizure records** *Speakers: Sabrina Natali Guisande Donadio*	TBA
5:00pm – 6:00pm	P	**P178: Flexible selection of cognitive tasks and memory suppression in a hippocampus ‚Äì prefrontal cortex network regulated by the nucleus reuniens** *Speakers: Rodrigo Pena*	TBA
5:00pm – 6:00pm	P	**P179: Personalized Cortical Circuit Modelling Implicates Synaptic Dynamics in Functional Variation across Individuals** *Speakers: Rachel Cooper*	TBA
5:00pm – 6:00pm	P	**P180: Assessing robust sequences‚ÄòofA‚Äòneural dynamics: a new approach to M/EEG signals analysis** *Speakers: Sara Kamali*	TBA
5:00pm – 6:00pm	P	**P181: Can short recovery time-constants of synapses explain long recovery time-constants of auditory evoked responses in monkey primary auditory cortex and** *Speakers: Siwei Qiu*	TBA
5:00pm – 6:00pm	P	**P182: Computational Circuit Mechanisms Underlying Thalamic Control of Attention** *Speakers: Qinglong Gu*	TBA
5:00pm – 6:00pm	P	**P183: Learning in the inhibitory network of the honeybee antennal lobe** *Speakers: Shruti Joshi*	TBA

5:00pm – 6:00pm	P	**P184: Biophysically realistic neural-network models of auditory neurons and synapses for neuroscience and machine-hearing applications** *Speakers: Sarah Verhulst*	TBA
5:00pm – 6:00pm	P	**P185: Emergence and propagation of asynchronous states of spontaneous cortical activity.** *Speakers: Roman Arango*	TBA
5:00pm – 6:00pm	P	**P186: Competition in synaptic plasticity leads to energy efficient learning** *Speakers: Silviu Ungureanu*	TBA
5:00pm – 6:00pm	P	**P187: Computational Investigation of the Effect of an SK Channel Activator on a Detrusor Smooth Muscle Cell Action Potential** *Speakers: Suranjana Gupta*	TBA
5:00pm – 6:00pm	P	**P188: Computational insights into Sino Atrial Arrhythmogenesis of Hydroxychloroquine for the treatment of COVID-19** *Speakers: Chitaranjan Mahapatra*	TBA
5:00pm – 6:00pm	P	**P189: Reward and state prediction error signals in cortico-striatal circuitry of obsessive-compulsive disorder** *Speakers: Taekwan Kim*	TBA
5:00pm – 6:00pm	P	**P190: Hippocampal indexing promotes cortical consolidation without interference by altering the stability landscape of synaptic weight space** *Speakers: Ryan Golden*	TBA
5:00pm – 6:00pm	P	**P191: Dynamic Network Reconstruction of Hypothalamic Melanin-Concentrating Hormone (MCH) Neurons** *Speakers: Sorinel Oprisan*	TBA
6:00pm – 7:00pm	P	**P120: Deep neural embedding of neuronal connectivity** *Speakers: Arata Shirakami, Masanori Shimono*	TBA
6:00pm – 7:00pm	P	**P12: How cerebellar architecture aids online motor learning** *Speakers: Adriana Perez Rotondo*	TBA
6:00pm – 7:00pm	P	**P192: Mathematical Modeling of Temperature Effects on the AFD Neuron of Caenorhabditis elegans** *Speakers: Zach Mobille*	TBA
6:00pm – 7:00pm	P	**P193: Dynamical Origin for Winner-Take-All Competition in A Biological Network of The Hippocampal Dentate Gyrus** *Speakers: Woochang Lim*	TBA
6:00pm – 7:00pm	P	**P194: Sequence learning, prediction, and generation in networks of spiking neurons** *Speakers: Younes Bouhadjar*	TBA
6:00pm – 7:00pm	P	**P195: Constructing a cortical column model from the local field potentials in the auditory cortex in awake monkeys** *Speakers: Thomas R. Knösche*	TBA
6:00pm – 7:00pm	P	**P196: Phasic and tonic changes in pupil size differentially track surprise and confidence during adaptive learning** *Speakers: Tiffany Bounmy*	TBA
6:00pm – 7:00pm	P	**P197: Network patterns emerging from the interplay of lateral inhibition and the intrinsic properties of striatal MSN** *Speakers: Vicente Gonzalez Bosca*	TBA

6:00pm – 7:00pm	P	**P198: Segregated resonant mechanisms in CA1 pyramidal cells: interplay of ionic currents and cell‚Äôs spatial structure** *Speakers: Ulises Chialva*	TBA
6:00pm – 7:00pm	P	**P199: Application of tensor component decomposition methods to characterize nonstationary population activity dynamics during a reversal learning task** *Speakers: Xiaochen Zhao*	TBA
6:00pm – 7:00pm	P	**P200: Online Working Memory Changes Brain Metabolisms in Self-control and Default Mode Networks** *Speakers: Yiyuan Tang*	TBA
6:00pm – 7:00pm	P	**P201: Seizure Forecasting from long-term EEG and ECG Data using Critical Slowing Principle** *Speakers: Wenjuan Xiong*	TBA
6:00pm – 7:00pm	P	**P202: Model inversion techniques for seizure spread in individual brain networks** *Speakers: Viktor Sip*	TBA
6:00pm – 7:00pm	P	**P203: A model study of electro-diffusion in dendritic signal processing** *Speakers: Yinyun Li*	TBA
6:00pm – 7:00pm	P	**P205: Improving the detection of ERPs and managing variability with dry electrodes in personalized BCIs** *Speakers: Vinicio Changoluisa*	TBA
6:00pm – 7:00pm	P	**P206: Biophysical parameters control information transfer in spiking networks** *Speakers: Tom√°s Garnier Arti√±ano*	TBA
6:00pm – 7:00pm	P	**P207: Sympathetic postganglionic neurons as a potential locus of modulation and plasticity in the sympathetic pathway** *Speakers: Astrid A. Prinz*	TBA
6:00pm – 7:00pm	P	**P208: Generative episodic memory: a computational model** *Speakers: Zahra Fayyaz*	TBA
6:00pm – 7:00pm	P	**P209: Spiking Computation using Dendrites** *Speakers: Thomas Burger*	TBA
6:00pm – 7:00pm	P	**P210: Dynamical differential covariance (DDC) recovers network structure in multi¬≠scale neural systems** *Speakers: Yusi Chen*	TBA
6:00pm – 7:00pm	P	**P211: Critical slowing biomarkers in mathematical neural models** *Speakers: Wei Qin*	TBA
6:00pm – 7:00pm	P	**P212: Chaotic dynamics introduce the discrete response and show the high susceptibility.** *Speakers: Tomoki Kurikawa*	TBA
6:00pm – 7:00pm	P	**P213: Precise spike-timing can be achieved by increasing inhibitory input** *Speakers: Tomas Barta*	TBA
6:00pm – 7:00pm	P	**P214: Simulating sleep spindles and slow oscillations EEG and MEG in a multiscale thalamocortical network model with hierarchical connectivity** *Speakers: Yury Sokolov*	TBA
6:00pm – 7:00pm	P	**P215: Predictive principal component analysis** *Speakers: Takuya Isomura*	TBA
6:00pm – 7:00pm	P	**P7: Exploiting modern multi-site electrodes for counteracting abnormal synchronization** *Speakers: Ali khaledi Nasab*	TBA

F Featured Oral | K Keynote | O Oral | P Poster | T Tutorial | W Workshop

JULY 6 • TUESDAY

PINNED 8:00am – 9:00am	K	**K4: Spatio-temporal spiking activity in the cortex** *Moderators: Alberto Mazzoni* *Speakers: Sonja Gruen*	TBA
9:00am – 9:05am	W	**W2 S01: Introduction** *Speakers: Organizers*	Zoom
9:00am – 9:05am	W	**W6 S01: Opening** *Speakers: Organizers*	Zoom
9:00am – 9:10am	W	**W9 S01: Introduction** *Speakers: Organizers*	Zoom
9:05am – 9:45am	W	**W6 S02: A mesoscale connectome defines spatiotemporal dynamics of neural activity across the mouse cortex** *Speakers: Tatiana Engel*	Zoom
9:05am – 9:50am	W	**W2 S02: TBA** *Speakers: Tatyana Sharpee*	Zoom
9:10am – 9:35am	W	**W9 S02: Complexity across experimental brain states: measures and mechanisms** *Speakers: Mavi Sanchez-Vives*	Zoom
9:35am – 10:00am	W	**W9 S03: Brain states govern the spatio-temporal dynamics of resting-state functional connectivity** *Speakers: Albrecht Stroh*	Zoom
9:45am – 10:25am	W	**W6 S03: Local brain states and their specialization captured by autocorrelation timescales.** *Speakers: Anna Levina*	Zoom
9:50am – 10:35am	W	**W2 S03: Estimating information transfer in vitro: results from barrel cortex** *Speakers: Fleur Zeldenrust*	Zoom
10:00am – 10:05am	W	**W5 S01: Introduction** *Speakers: Organizers*	Zoom
10:00am – 10:10am	W	**W10 S01: Welcome from International Brain Initiative** *Speakers: Kenji Doya*	Zoom
10:00am – 10:40am	W	**W9 S04: Rapid Dynamics Explain Neuronal and Behavioral Variability** *Speakers: David McCormick*	Zoom
10:05am – 10:35am	W	**W5 S02: Topological Characterization for Multi-Variate Pattern Analysis** *Speakers: Alice Patania*	Zoom
10:10am – 10:20am	W	**W10 S02: Introduction to the workshop goals** *Speakers: Sharon Crook*	Zoom
10:20am – 10:40am	W	**W10 S03: INCF TrainingSuite: Neuroeducation without borders** *Speakers: Matthew Abrams*	Zoom
10:30am – 11:10am	W	**W6 S04: Perturbational in silico approaches to understand states of consciousness.** *Speakers: Enzo Tagliazucchi*	Zoom
10:35am – 11:05am	W	**W5 S03: Simplicial and Topological Descriptions of Human Brain Dynamics** *Speakers: Giovanni Petri*	Zoom

10:40am – 11:00am	W	**W10 S04: EBRAINS/Human Brain Project tools and workflows for data-driven modeling** *Speakers: Andrew Davison*	Zoom
10:50am – 11:15am	W	**W9 S05: State-dependent changes in cortical differentiation are due to neuronal OFF-periods** *Speakers: Marcello Massimini*	Zoom
11:00am – 11:20am	W	**W10 S05: Open data, analysis/modeling tools, and workflows from the Allen Institute** *Speakers: Shinya Ito, Kaitlyn Casimo*	Zoom
11:00am – 11:30am	W	**W2 S04: Efficient neuronal coding of static stimuli with different noise types and different objective functions** *Speakers: Shuai Shao*	Zoom
11:05am – 11:35am	W	**W5 S04: Exploring causality in neuroimaging time series** *Speakers: Raphael Liegeois*	Zoom
11:10am – 11:50am	W	**W6 S05: Synchrony in visual cortical populations during wakefulness: the good and the bad.** *Speakers: Valentin Dragoi*	Zoom
11:15am – 11:40am	W	**W9 S06: The metastability of the cortical Down states and its role in the dynamics of the unconscious brain** *Speakers: Alessandra Camassa*	Zoom
11:30am – 12:00pm	W	**W2 S05: Sources of Prediction Information in Dynamical Neural Networks** *Speakers: Madhavun Candadai*	Zoom
11:30am – 12:15pm	W	**W10 S06: Breakout session one** *Speakers: Organizers*	Zoom
11:40am – 12:05pm	W	**W9 S07: Rare long-range cortical exceptions enhance information processing in turbulent brain dynamics** *Speakers: Morten Kringelbach*	Zoom
11:45am – 12:15pm	W	**W5 S05: Topological Data Analysis of Functional Brain Connectivity in Time and Space Domains** *Speakers: Bei Wang*	Zoom
11:50am – 12:15pm	W	**W6 S06: General discussion** *Speakers: Organizers*	Zoom
12:00pm – 12:05pm	W	**W1 S01: Introduction** *Speakers: Organizers*	Zoom
12:00pm – 12:10pm	W	**W8 S01: Welcome & Introduction** *Speakers: Organizers*	Zoom
12:00pm – 12:30pm	W	**W2 S06: Neural Information Dynamic and Topological Correlates of Complex Behaviors in Macaques** *Speakers: Thomas Varley*	Zoom
12:05pm – 12:30pm	W	**W1 S02: Astrocyte NMDA receptors regulate the range of basal synaptic strengths of hippocampal neurons** *Speakers: Yukiko Goda*	Zoom
12:05pm – 12:30pm	W	**W9 S08: Symmetry breaking shapes invariance of brain state dynamics at rest** *Speakers: Viktor Jirsa*	Zoom
12:10pm – 12:45pm	W	**W8 S02: Organization and Control of Hippocampal Circuits** *Speakers: Ivan Soltesz*	Zoom

12:15pm – 12:30pm	W	**W10 S07: Reporting and discussion of session one** *Speakers: Organizers*	Zoom
12:15pm – 12:45pm	W	**W5 S06: Comparing coding of topological features across neural populations** *Speakers: Chad Giusti*	Zoom
12:30pm – 1:00pm	W	**W1 S03: Modeling astrocytes: from synaptic cleft to large networks** *Speakers: Alla Borisyuk*	Zoom
12:30pm – 1:15pm	W	**W10 S08: Breakout sessions two** *Speakers: Organizers*	Zoom
12:45pm – 1:15pm	W	**W5 S07: Revealing the dynamical landscape using evoked and intrinsic brain activity patterns** *Speakers: Manish Saggar*	Zoom
12:45pm – 1:20pm	W	**W8 S03: talk title TBA** *Speakers: Maria Geffen*	Zoom
1:15pm – 1:30pm	W	**W10 S09: Reporting and discussion session two** *Speakers: Organizers*	Zoom
1:15pm – 1:30pm	W	**W5 S08: Brief panel on the future of topological neuroscience** *Speakers: Organizers*	Zoom
1:15pm – 1:40pm	W	**W1 S04: TBA** *Speakers: Jennifer Shih*	Zoom
1:20pm – 1:55pm	W	**W8 S04: talk title TBA** *Speakers: Claudio R. Mirasso*	Zoom
1:40pm – 2:15pm	W	**W1 S05: Astrocyte-neuron interactions change the rules of synaptic plasticity** *Speakers: Annalisa Scimemi*	Zoom
PINNED 2:00pm – 3:00pm	K	**Discussion for K4: Spatio-temporal spiking activity in the cortex** *Moderators: Alberto Mazzoni* *Speakers: Sonja Gruen*	TBA
2:10pm – 2:45pm	W	**W8 S06: Inhibitory engrams in systems consolidation** *Speakers: Claudia Clopath*	Zoom
2:30pm – 2:55pm	W	**W1 S06: AQuA: A Machine-Learning and Event Based Approach to Quantify Astrocyte Activity** *Speakers: Guoqiang Yu*	Zoom
2:45pm – 3:20pm	W	**W8 S07: Distinguishing normal from pathological High Frequency Oscillations based on signal characteristics of interneurons and pyramidal cells** *Speakers: William Stacey*	Zoom
2:55pm – 3:30pm	W	**W1 S07: Spontaneous emergence of Ca2+ fluctuations in realistic astrocyte processes** *Speakers: Laszlo Heja*	Zoom
3:20pm – 3:30pm	W	**W8 S08: Closing remarks** *Speakers: Organizers*	Zoom

[F] Featured Oral [K] Keynote [O] Oral [P] Poster [T] Tutorial [W] Workshop

JULY 7 • WEDNESDAY

3:30am – 3:45am	W	**W4 S01: Introduction** *Speakers: Organizers*	Zoom
3:30am – 4:00am	W	**W7 S01: Mean-field models as a bridge between data and realistic large-scale spiking simulations** *Speakers: Cristiano Capone*	Zoom
3:30am – 4:15am	W	**W2 S07: Information deletion in the visual system** *Speakers: Aaron Gutknecht*	Zoom
3:45am – 4:15am	W	**W4 S02: Update on the use of animal research** *Speakers: Kirk Leech*	Zoom
4:00am – 4:30am	W	**W7 S02: Mean field approximation of network of coupled neurons driven by conductance based ion exchange dynamics** *Speakers: Spase Petkoski*	Zoom
4:15am – 4:45am	W	**W4 S03: Bridging spatial scales in biophysical models for translational clinical applications** *Speakers: Matthieu Gilson*	Zoom
4:15am – 5:00am	W	**W2 S08: Embedding optimization reveals long-lasting history dependence in neural spiking activity** *Speakers: Lucas Rudelt*	Zoom
4:30am – 5:00am	W	**W7 S03: Developing a reduced bursting neuron model to preserve population level behaviors** *Speakers: Hugh Osborne*	Zoom
4:45am – 5:15am	W	**W4 S04: Panel discussion** *Speakers: Organizers*	Zoom
5:20am – 5:50am	W	**W7 S04: TBA** *Speakers: Alain Destexhe*	Zoom
5:30am – 6:00am	W	**W2 S09: Information-theoretic bounded rationality models for perception-action systems** *Speakers: Daniel Braun*	Zoom
5:30am – 6:00am	W	**W4 S05: Towards time-adaptive treatments in epilepsy using data-driven subject-specific models** *Speakers: Yujiang Wang*	Zoom
5:50am – 6:20am	W	**W7 S05: Conditions for wave trains in spiking neural networks** *Speakers: Moritz Helias*	Zoom
6:00am – 6:30am	W	**W2 S10: A Nearest-Neighbours Estimator for Conditional Mutual Information** *Speakers: Jake Witter*	Zoom
6:00am – 6:30am	W	**W4 S06: Multiscale co-simulation of deep brain stimulation** *Speakers: Jil Meier*	Zoom
6:20am – 6:50am	W	**W7 S06: Next generation mean-field models for neural activity** *Speakers: Aine Byrne*	Zoom
6:30am – 7:00am	W	**W2 S11: Information Theory vs. Stationarity - a Devil's Advocate View** *Speakers: Claudius Gros*	Zoom

6:30am – 7:00am	W	**W4 S07: Panel discussion** *Speakers: Organizers*	Zoom
8:00am – 8:25am	W	**W9 S09: Cortical responsiveness and complexity in rats across brain states** *Speakers: Alessandro Arena*	Zoom
8:00am – 8:30am	W	**W4 S08: Resilience in neural systems: from an understanding based on dynamical principles towards clinical diagnostics** *Speakers: Christian Meisel*	Zoom
8:00am – 8:30am	W	**W7 S07: Exact neural mass model for synaptic based working memory** *Speakers: Halgurd Taher*	Zoom
8:00am – 8:45am	W	**W2 S12: Psychedelics and functional brain networks: employing concepts from information theory to study altered states of consciousness** *Speakers: Aline Viol*	Zoom
8:25am – 8:50am	W	**W9 S10: Probing the edge of synchronization: Slow-waves onset in premotor cortex of behaving monkeys** *Speakers: Maurizio Mattia*	Zoom
8:30am – 9:00am	W	**W4 S09: Data-driven approach to neuroimaging analysis to identify dementia subtypes** *Speakers: Vesna Vuksanovic*	Zoom
8:30am – 9:00am	W	**W7 S08: Low-dimensional dynamics of spiking neural networks with short-term plasticity** *Speakers: Richard Gast*	Zoom
8:45am – 9:30am	W	**W2 S13: Bits and Pieces: Understanding Information Decomposition from Part-Whole Relationships** *Speakers: Li Zhaoping*	Zoom
8:50am – 9:30am	W	**W9 S11: The arrow of time in brain dynamics: non-equilibrium in different brain states** *Speakers: GUSTAVO DECO*	Zoom
9:00am – 9:05am	W	**W3 S01: Introduction** *Speakers: Organizers*	Zoom
9:00am – 9:30am	W	**W4 S10: On the Importance of Incorporating Time and Context in Computational Psychiatry Models** *Speakers: Peter Hitchcock*	Zoom
9:00am – 9:30am	W	**W7 S09: Cross frequency coupling in next generation inhibitory neural mass models** *Speakers: David Angulo*	Zoom
9:05am – 9:30am	W	**W3 S02: Robustness of connectome harmonics to local gray matter and long-range white matter connectivity changes** *Speakers: Sebastian Naze*	Zoom
9:30am – 9:55am	W	**W3 S03: Harmonic modes and the structure-function relationship in fast network dynamics** *Speakers: Katharina Glomb*	Zoom
9:30am – 10:00am	W	**W4 S11: Panel discussion** *Speakers: Organizers*	Zoom
9:40am – 10:05am	W	**W9 S12: Simulations Approaching Data: Cortical Slow Waves in Inferred Models of the Whole Hemisphere of Mouse** *Speakers: Cristiano Capone*	Zoom
9:50am – 10:20am	W	**W7 S10: Macroscopic phase-resetting curves characterise directed functional oscillatory connectivity** *Speakers: Boris Gutkin*	Zoom

9:55am – 10:20am	W	**W3 S04: Probing structure-function coupling of brain organization with graph signal processing** *Speakers: Dimitri Van De Ville*	Zoom
10:00am – 10:30am	W	**W2 S14: High-Order Interdependencies in the Aging Brain** *Speakers: Rodrigo Corfe Torres*	Zoom
10:05am – 10:30am	W	**W9 S13: Building mean-field models from microscopic scales to account for mesoscopic and macroscopic-scale phenomena** *Speakers: Alain Destexhe*	Zoom
10:20am – 10:45am	W	**W3 S05: Time-varying Dynamic Network Model For Dynamic Resting State Functional Connectivity in fMRI and MEG imaging** *Speakers: Fei Jiang*	Zoom
10:20am – 10:50am	W	**W7 S11: Exact mean-field theory explains the dual role of electrical synapses in collective synchronization** *Speakers: Ernest Montbrio*	Zoom
10:30am – 10:55am	W	**W9 S14: Novel methods illustrate the emergence of global brain states from microscopic mechanisms to identify new interpretations of neural information** *Speakers: Jennifer Goldman*	Zoom
10:30am – 11:15am	W	**W2 S15: Towards an informational architecture of the human brain** *Speakers: Fernando Rosas*	Zoom
10:30am – 11:30am	W	**W4 S12: Final discussion** *Speakers: Organizers*	Zoom
10:45am – 11:10am	W	**W3 S06: TBD** *Speakers: Haleh Falakshahi*	Zoom
10:50am – 11:20am	W	**W7 S12: Rate models for gamma oscillations** *Speakers: John Rinzel*	Zoom
10:55am – 11:30am	W	**W9 S15: Round table** *Speakers: Organizers*	Zoom
11:10am – 11:35am	W	**W3 S07: TBD** *Speakers: Srikantan Nagarajan*	Zoom
11:15am – 11:45am	W	**W2 S16: TBA** *Speakers: Sarah Marzen*	Zoom
11:35am – 12:00pm	W	**W3 S08: TBD** *Speakers: Pratik Mukherjee*	Zoom
11:45am – 12:00pm	W	**W2 S17: Final discussion and ECR Best Presentation award** *Speakers: Organizers*	Zoom
12:00pm – 12:05pm	W	**W1 S08: Introduction** *Speakers: Organizers*	Zoom
12:00pm – 12:15pm	W	**W3 S09: Panel discussion** *Speakers: Organizers*	Zoom
12:05pm – 12:30pm	W	**W1 S09: A glimpse of Alzheimer's disease mechanisms from a computational model of astrocytic microdomain** *Speakers: Anup Pillai*	Zoom
12:30pm – 1:00pm	W	**W1 S10: Modelling and analysing neuron-astrocyte metabolic interactions** *Speakers: Renaud Jolivet*	Zoom

1:15pm – 1:40pm	W	**W1 S11: Analyzing network-level astrocyte calcium: Compressing data but keeping information** *Speakers: Max Collard*	Zoom
1:40pm – 2:15pm	W	**W1 S12: Disentangling astrocytic calcium activity: insights from spatially-extended models** *Speakers: Audrey Denizot*	Zoom
2:00pm – 2:05pm	W	**W3 S10: Introduction** *Speakers: Organizers*	Zoom
2:05pm – 2:30pm	W	**W3 S11: TBD** *Speakers: Bill Lytton*	Zoom
2:30pm – 2:55pm	W	**W1 S13: Features of hippocampal astrocytic domains and their spatial relation to excitatory and inhibitory neurons** *Speakers: Ron Refaeli*	Zoom
2:30pm – 2:55pm	W	**W3 S12: Parcels and particles: Markov blankets in the brain** *Speakers: Adeel Razi*	Zoom
2:55pm – 3:20pm	W	**W3 S13: TBD** *Speakers: Giovanni Rabuffo*	Zoom
2:55pm – 3:30pm	W	**W1 S14: Computational models of interactions between neuronal and astrocytic networks** *Speakers: Kerstin Lenk*	Zoom
3:20pm – 3:45pm	W	**W3 S14: TBD** *Speakers: Prejaas Tewarie*	Zoom
3:45pm – 4:10pm	W	**W3 S15: Dynamic Functional Connectivity, Neuromodulatory switches and the Network Organization of Human connectome** *Speakers: Patricio Orio*	Zoom
4:10pm – 4:35pm	W	**W3 S16: TBD** *Speakers: Alex Leow*	Zoom
4:35pm – 5:00pm	W	**W3 S17: A biophysical spectral graph theory-based model of brain oscillations** *Speakers: Parul Verma and Ashish Raj*	Zoom
5:00pm – 5:15pm	W	**W3 S18: Panel discussion** *Speakers: Organizers*	Zoom