

ICMNS 2018 - Posters

1. **Anna Song (ENS Paris)** and Olivier Faugeras.
A Neural field Model for Color perception.
2. **Émilie Soret (Inria)**, Olivier Faugeras and Etienne Tanré.
Mean field limit for neural network with random synaptic weights.
3. **Joachim Crevat (Inst. Math. Toulouse)**, Grégory Faye and Francis Filbet.
Mean-Field and Hydrodynamic limits for the Fitzhugh-Nagumo model.
4. **Benoit Duchet (University of Oxford)** and Rafal Bogacz.
Taking the data-driven route to identifying dynamics in movement disorder time-series.
5. **Paul Pfeiffer (Inst. for Theoretical Bio. and Bernstein Center for Comp. Neur., Humboldt-Univ., Berlin)**, Alexei V. Egorov, Franziska Lorenz, Jan-Hendrik Schleimer, Andreas Draguhn and Susanne Schreiber.
Cooperative ion channels enable short-term memory via persistent activity.
6. **Janus Lind (Univ. of Copenhagen)**, Andreas Grasskamp, Alexander Walter, Susanne Ditlevsen and Jakob Balslev Sørensen.
Stochastic simulations of synaptic facilitation in Drosophila neuromuscular junction.
7. **Wilhelm Braun (Univ. of Ottawa and Univ. Bonn)** and André Longtin.
Understanding temporal correlations in networks of spiking neurons.
8. **Hector Olivero (Inria)**, Mireille Bossy and Joaquin Fontbona.
Synchronization of stochastic mean field networks of Hodgkin-Huxley neurons with noisy channels.
9. **Quentin Cormier (Inria)**.
Steady-states analysis of a mean-field model of interacting neurons.
10. **Dora Karvouniari (Inria)**, Lionel Gil, Olivier Marre, Serge Picaud and Bruno Cessac.
Pattern formation and criticality in the developing retina.

11. **Paul Manz (Univ. of Bonn)**, Sven Goedeke and Raoul-Martin Memmesheimer.
Designing spike chaos by changing single neuron properties.
12. **Benjamin Aymard (Inria)** and Romain Veltz.
Mean field approximation of a AdExp neural network based on stochastic spiking event.
13. **Karina Kolodina (Norwegian Univ. of Life Sciences (NMBU))**, Vadim Kostykin and Anna Oleynik.
Stationary periodic solutions in the Amari model.
14. **Sakura Rai (Tokyo Univ. of Science)**, Mayu Aoki, Yutaka Shimada, Kantaro Fujiwara and Tohru Ikeguchi.
Investigation of ISO Generated by Dopaminergic Modulation and Inhibitory Synaptic Learning
15. **Jaime Gomez-Ramirez (Centre for Research in Neurodegenerative Diseases Fundación Reina Sofia)**.
Understanding resting state fMRI connectivity with persistent homology.
16. **Selma Souihel (Inria)** and Bruno Cessac.
A 2D connected retinal model for processing simple and complex motion features.
17. **Nathalie Gayraud (Inria)** and Maureen Clerc.
Covariate Shift Adaptation using Optimal Transport.
18. **Maria Masoliver Vila (Universitat Politècnica de Catalunya)** and Cristina Masoller.
Subthreshold signal encoding in coupled FitzHugh-Nagumo neurons.
19. **Weronika Wojtak (University of Minho)**, Flora Ferreira, Estela Bicho and Wolfram Erlhagen.
Numerical continuation of solutions of neural field equations with oscillatory coupling functions.
20. **Jessica Helms (College of Charleston)**, Xandre Clementsmith, Sorinel A. Oprisan, Tamás Tompa and Antonieta Lavin.
Optogenetic investigation of dopamine antagonists effects on the prefrontal cortex dynamics.
21. **Masud Ehsani (Max Planck Institute for Mathematics in the Sciences)** and Pau Vilimelis Aceituno.
Synaptic time-dependent plasticity and transmission speed increase.
22. **Pascal Helson (Inria)**.
A Mathematical approach on memory capacity of simple synapses models.
23. **Giuseppe Ilario Cirillo (University of Cambridge)** and Rodolphe Sepulchre.
A model of hyperpolarized bursting.

24. **Pierre Roux (Institut de Mathématique d’Orsay).**
The Noisy Network Leaky Integrate and Fire model for neurons with a transmission delay.
25. **Alberto Pérez-Cervera (Universitat Politècnica de Catalunya),**
Gemma Huguet and Tere M.Seara.
Numerical computation of Phase Response Curves using the parameterization method.
26. **Michael Forrester (University of Nottingham).**
The role of node dynamics in shaping emergent structure-function relations in a neural-mass network.
27. **Luke Tait (University of Exeter),** Kyle Wedgwood, Krasimira Tsaneva-Atanasova, Jon Brown and Marc Goodfellow.
Control of clustered action potential firing in a mathematical model of entorhinal cortex stellate cells.
28. **Maria Masoliver (Universitat Politècnica de Catalunya),** Cristian Estarellas Martin, Claudio Mirasso and Cristina Masoller. *Characterizing spike sequences generated by different neuronal models via ordinal time-series analysis.*
29. **Wenqi Wu (Max Planck Institute for Dynamics and Self-Organization)**
and Fred Wolf.
A detailed Hebbian learning model for orientation map development.
30. **Giacomo Ascione (Università di Napoli)** and Enrica Pirozzi.
Fractional noise model with stochastic drift for neuronal dynamics including memory effects.
31. **Axel Dolcemascolo (INPHYNI lab, Sophia Antipolis, France),**
Francesco Marino, Romain Veltz and Stéphane Barland.
Experimental analysis and mean-field dynamics of a fully connected network of spiking neuromorphic device.
32. **Michael Fundator (National Academies of Sciences, Engineering, and Medicine, USA.)**
Applications of Multidimensional Time Model for Probability Cumulative Function to model stimulations of single fiber vs. a bundle.
33. **Suchitra S (University of Hyderabad)** and Vipin Srivastava.
Pattern separation and error correction in an attractor neural network with Gram-Schmidt orthogonalization.
34. **Anca Radulescu (SUNY New Paltz)** and Simone Evans.
Dynamic networks with complex discrete nodes.

35. **Altyn Zhelambayeva (Nazarbayev University)** and Hernando Om-bao.
Dimensionality reduction of brain signals of rats by Spectral Principal Component Analysis (SPCA).
36. **Ho Ka Chan (University of Sussex)** and Thomas Nowotny.
Detection of correlations in input signals with a small neural circuit.
37. **Tristan Aft (College of Charleston)**, Sorinel Oprisan, Mona Buhusi and Catalin Buhusi.
A mathematical model of hippocampus lesions based on temporal maps for interval timing.
38. **Dave Austin (College of Charleston)** and Sorionel A. Oprisan.
Phase resetting in response to multiple stimuli per cycle of neural activity.
39. **Cecilia Romaro (FFCLRP - University of São Paulo (USP))**, Renan Shimoura, Vinicius Cordeiro, Nilton Kamiji and Antônio Carlos Roque.
Boundary conditions for a spatially extended cortical microcircuit model.
40. **Yan Hao (Hobart and William Smith Colleges)** and Daniel Graham.
Simulating efficient routing protocols in primate brain networks.
41. **Marcos Rodríguez (Centro Universitario de la defensa de Zaragoza)**, Roberto Barrio, Alvaro Lozano and Sergio Serrano.
Pattern bifurcations and control strategies in Central Pattern Generators.