NeuralNet GDR 2018 Conference
UNDERSTANDING NEURAL NETWORKS: FROM DYNAMICS TO FUNCTION

Wednesday, December 5th, 2018

13:00 - 13:45 WELCOME COFFEE
13:45 - 14:00 INTRODUCTION

SESSION 1 • CHAIRMAN: GERMAN SUMBRE, ENS
14:00 - 14:45 KEYNOTE LECTURE “NEURAL MOTION”
Giles LAURENT (MPI, Frankfurt)

14:45 - 15:15 PHOTOTAXIS IN ZEBRAFISH: BEHAVIORAL STRATEGIES & NEURAL COMPUTATION
Georges DÉBREGES (UPMC, Paris) • Invited speaker

15:15 - 15:35 SPONSORS’ PRESENTATIONS

15:35 - 16:00 POSTER BLITZ

16:00 - 16:15 COFFEE BREAK • POSTERS SESSION

SESSION 2 • CHAIRWOMAN: CHRISTELLE ROCHÉFORT, UPMC
17:30 - 18:00 POPULATION CODING OF VALUE AND ACTION IN THE PREFRONTAL CORTEX DURING AVOIDANCE BEHAVIOR
Cyril DEJEAN (Neurocampus, Bordeaux) • Invited speaker

18:00 - 18:30 ENTORHINAL CIRCUIT MECHANISMS FOR SPATIAL MEMORY
Matt NOLAN (Edinburgh University) • Invited speaker

18:30 - 18:45 DISSOCIATION OF FEAR INITIATION AND MAINTENANCE BY BREATHING-DRIVEN PREFRONTAL OSCILLATIONS
Sophie BAGUR (ESPCI, Paris) • Selected talk

18:45 DINNER COCKTAIL CHEESE AND WINE!

Thursday, December 6th, 2018

SESSION 3 • CHAIRMAN: KARIM BENCHENANE, ESPCI
9:00 - 9:30 PRELIMINIC CIRCUITS FOR SUCCESSFUL GAMBLING
Thomas KLAUSERBERGER (MedUni, Wien) • Invited speaker

9:30 - 10:00 MECHANISMS OF MEMORY FORMATION: FROM HIPPOCAMPAL TO Olfactory NETWORKS
Lisa ROUX (Neurocampus, Bordeaux) • Invited speaker

10:00 - 10:15 A HIPPOCAMPUSS-ACCUMBENS TRIPARTITE NEURONAL MOTIF GUIDES APPETITIVE MEMORY IN SPACE
Stéphanie TROUCHE (Oxford University) • Selected talk

10:15 - 11:15 COFFEE BREAK • POSTERS SESSION

SESSION 4 • CHAIRMAN: MICHAEL ZUGARO, CIRB
11:15 - 11:45 THE ROLE OF SENSORY INPUTS IN GENERATING AND SUSTAINING COGNITIVE MAPS
Francesca CACUCCI (UCL, London) • Invited speaker

11:45 - 12:00 SPATIOTEMPORAL SIGNATURE OF NAVIGATION SIGNALS IN VISUAL CORTEX & HIPPOCAMPUSS
Julien FOURNIER (UCL, London / UPMC, Paris) • Selected talk

12:00 - 14:00 LUNCH BUFFET • POSTERS SESSION

SESSION 5 • CHAIRMAN: SRIDAN OSTOJIC, ENS
14:00 - 14:30 RESILIENCE TO DAMAGE AND PERTURBATIONS IN SPIKE CODING NETWORKS
Christian MACHENS (Champalimaud Institute, Lisbon) • Invited speaker

14:30 - 15:00 OPTIMAL CONTROL OF BALLISTIC MOVEMENTS IN A THALAMO-CORTICAL CIRCUIT MODEL
Guillaume HENNEQUIN (Cambridge University) • Invited speaker

15:00 - 15:20 A COMPUTATIONAL MODEL OF THE HEALTHY AND EPILEPTIC HIPPOCAMPUS OVER THE SLEEP-WAKE CYCLE
Amélie AUSSÉ (Université de Lorraine) • Selected talk

15:20 - 16:45 COFFEE BREAK • POSTERS SESSION

16:45 - 17:30 GDR GENERAL ASSEMBLY • POSTERS SESSION

SESSION 6 • CHAIRMAN: DANIEL SCHULZ, UNIC
17:30 - 18:00 ORGANIZATION AND FUNCTION OF HIGHER-ORDER THALAMIC CIRCUITS
Sonia HOFER (UCL, London) • Invited speaker

18:00 - 18:30 CRACKING THE RETINAL CODE AND CIRCUITS
Olivier MARRE (IDV, Paris) • Invited speaker

18:30 - 18:45 RICH SPATIO-TEMPORAL STIMULUS DYNAMICS UNVEIL SENSORY SPECIALIZATION IN CORTICAL AREA S2
Evan HARRELL (UNIC) • Selected talk

18:45 GALA DINNER!

Friday, December 7th, 2018

SESSION 7 • CHAIRMAN: BRICE BATHHELLIER, UNIC
9:00 - 9:30 THALAMOCORTICAL INTERACTIONS IN COGNITIVE CONTROL AND FLEXIBILITY
Michael HALASSA (MIT, Cambridge MA) • Invited speaker

9:30 - 10:00 THE SPATIAL & TEMPORAL DYNAMICS OF ATTENTION: INSIGHTS FROM DIRECT ACCESS TO THE ATTENTIONAL SPOTLIGHT
Sulann BEN HAMED (ISC, Lyon) • Invited speaker

10:00 - 10:15 AN ATTENTIONAL SENSORY TEMPLATE IN FRONTAL CORTEX
Yves BOUBÈNEC (ENS, Paris) • Selected talk

10:15 - 11:15 COFFEE BREAK • POSTERS SESSION

SESSION 8 • CHAIRMAN: VINCENT VILLETTE, ENS
11:15 - 11:45 A RANDOM-ACCESS STRATEGY FOR ALL-OPTICAL CONTROL & RECORDING OF NEURAL MEMBRANE POTENTIAL IN VIVO
Stéphane DIEUDONNÉ (ENS, Paris) • Invited speaker

11:45 - 12:00 GRAPHENE BASED NANO-NEUROELECTRONICS
Cécile DELACOUR (Institut NÉEL, Grenoble) • Selected talk

12:00 - 12:10 POSTER PRIZES

12:10 - 14:00 LUNCH BUFFET • POSTERS SESSION

SESSION 9 • CHAIRWOMAN: ERIN PAPAGIATKOUOMI, IDV
14:00 - 14:15 PREFRONTAL CIRCUIT ENCODING FEAR AND SAFETY
Frédéric GAMBINI (NeuroCampus, Bordeaux) • Selected talk

14:15 - 14:45 ALL-OPTICAL HIGH RESOLUTION 3D INVESTIGATION OF BRAIN DYNAMICS UNDERLYING BEHAVIOR
Marco DAL MASCHIO (UNIPD, Padova / MPI, Munich) • Invited speaker

14:45 - 15:20 TOWARDS CIRCUIT OPTOGENETICS
Valentina EMILIANI (IDV, Paris) • Invited speaker

15:20 - 15:30 CONCLUDING REMARKS

15:30 END