

Thursday 10th of October 2019

(Joint day with the GDR ISIS)

09h30–12h30 : Methods workshop « *Deep-learning as a tool for vision sciences* », Laurent Perrinet (INT)

We propose in a short tutorial to present the new challenges brought by deep learning and more generally machine learning. The objective is to show in the form of simple practical exercises how these new tools allow 1) to generalize data analysis procedures, 2) to test in a simple way models of visual responses.

12h30–13h45 : Lunch (room Laurent Vinay, R+1)

13h45–14h00 : Introduction

14h00–15h30 : **Talk session 1** "Models of Vision, Visions of Models", chair: Laurent Perrinet

14:00 - 14:15 Visual Worlds, a research and creation programme of the Media Art School of Chalon-sur-Saône - Olivier Perriquet, Ecole Media Art du Grand Chalon, Le Fresnoy - Studio National des Arts Contemporains

14:15 - 14:30 Un modèle variationnelle d'influence achromatique - Edoardo Provenzi, Institut de Mathématiques de l'Université de Bordeaux

14:30 - 14:45 Disclosing visual illusions via neural dynamics: Wilson-Cowan-type models and the efficient representation principle - Luca Calatroni, Centre de Mathématiques Appliquées - Ecole Polytechnique

14:45 - 15:00 A low-vision assistive device using mixed reality to enhance face recognition - Josselin Gautier, University of California [Berkeley], Inria Sophia Antipolis - Méditerranée

15:00 - 15:15 Is High-Phi a global 3D motion effect? - Martin Bossard, Cardiff University - School of Psychology

15:15 - 15:30 Does the brain perform arithmetical computations with neurally embedded kinematic parameters? - Laurent Goffart, Centre Gilles-Gaston Granger, Institut de Neurosciences de la Timone

15h30–16h15 : Coffee & Posters

16h15–17h00 : **Keynote 1** Ryad Benosman (Institut de la Vision)

"What is neuromorphic computer vision? Sensors, theory and applications"

17h00–18h15 : **Talk session 2** "From Low to High-level Vision and Back", chair: Manuel Vidal

17:00 - 17:15 Large category-selective responses of populations of neurons in the human ventral occipito-temporal cortex emerge independently of low-level statistical image properties - Bruno Rossion, CNRS, Université de Lorraine

17:15 - 17:30 Contrast sensitivity for rapid face categorization among natural images - Yu-Fang Yang, Research Institute for Psychological Science, Université Catholique de Louvain, Louvain-la-Neuve

17:30 - 17:45 Linguistic variables modulate where the eyes move regardless of word boundaries: Evidence against word-based eye-movement guidance during reading - Françoise Vitu, Laboratoire de psychologie cognitive

17:45 - 18:00 Rapid adaptation of fixation distribution during sentence reading with central field loss and its role in reading performance : a mediation analysis - Éric Castet, laboratoire de psychologie cognitive

19h00 : Social dinner

Friday 11th of October 2019

09h30–10h45 : Talk session 3 "Perception and Action loop", chair: Françoise Vitu

09:30 - 09:45 Efficiency and deficiency of pure visual control of arm movements: an assessment with patients deprived of somatosensory feedback - Fabrice Sarlegna, Institut des Sciences du Mouvement Etienne Jules Marey

09:45 - 10:00 An Eye Saccade Related Potential analysis of the motion perception during saccadic eye movements - Anne Guérin Dugué, Grenoble Images Parole Signal Automatique

10:00 - 10:15 Counter-intuitive integration of visual priors: Insights from a decision-making task. - Federica Conti, Institut de Neurosciences de la Timone

10:15 - 10:30 Are saccades influenced by unconscious stimuli ? - François Stockart, Integrative Neuroscience and Cognition Center

10:30 - 10:45 Interlimb transfer of visuomotor prismatic adaptation in patients with corpus callosum abnormalities - Penelope Tilsey, Institut des Sciences du Mouvement (ISM)

10h45–11h30 : Coffee & Posters

11h30–12h15 : Keynote 2 Eli Brenner (Vrije Universiteit)
"The visual control of goal-directed arm movements"

12h15–12h30 : Sponsors presentation

12h30–13h45 : Lunch (R+4)

13h45–14h45 : Talk session 4 "Neuronal bases of visual perception", chair: Anna Montagnini

13:45 - 14:00 Integration and comparison of visual and working memory representations in posterior parietal cortex - Guilhem Ibos, Institut de Neurosciences de la Timone

14:00 - 14:15 Processing of rotational symmetry in the non-human primate brain - Pauline Audurier, Centre de Recherche Cerveau et Cognition (CERCO)

14:15 - 14:30 Multisensory integration in the posterior cingulate gyrus in macaque at local field potentials level - Anne-Laure Vittek, Centre de Recherche Cerveau et Cognition (CERCO)

14:30 - 14:45 Chronic neural adaptation to habitual optical blur alters neural processing - Antoine Barbot, University of Rochester Medical Center, Spinoza Centre for Neuroimaging, Amsterdam

14:45 - 15:00 Dissociation between objective and subjective perceptual experiences in a population of hemianopic patients: A new form of blindsight? - Clémentine Garric, Sciences Cognitives et Sciences Affectives (SCALab) - UMR 9193, Unité Vision et Cognition

15h00–15h45 : Keynote 3 Georgia Gregoriou (University of Crete)
"The role of executive control areas in attentional selection. Insights from electrophysiology"

15h45–16h15 : Coffee & Posters

16h15–17h00 : Business Meeting, end of the conference.