



AVA Christmas Meeting 2015

21st December, 2015

People's Palace & Queen's Building,
Queen Mary University of London

PROGRAM

10:00 - 11:00

REGISTRATION & COFFEE

Session 1

11:00 - 11:30 Peter Neri (Ecole Normale Supérieure), *Object segmentation controls image reconstruction from natural scenes*

11:30 - 11:45 Szonya Durant, *Subconscious detection of the orientation statistics within scenes*

11:45 - 12:00 George Mather, *TMS reveals dual processing routes for biological motion perception*

12:00 - 12:15 Michael Morgan, *A possible Human Polymorphism in Motion Adaptation*

12:15 - 12:30 Keith Langley, *Conjugate Riesz Priors for Visual Motion and Spatial Orientation Estimation*

LUNCH & POSTERS

Session 2

13:30 - 14:00 Laura Busse (Tubingen University), *Contextual modulation of information processing in the mouse early visual system*

14:00 - 14:15 Hadi Maboudi, *A neural network model for the dynamics of orientation selectivity neurons in the bee visual system*

14:15 - 14:30 Gioia de Franceschi, *Freeze or flight: mouse strategies for avoiding capture by overhead threats*

14:30 - 14:45 Annette Allen, *Melanopsin contributions to encoding spatial patterns in the mouse visual system*

14:45 - 15:00 Lewis Griffin, *What is the size of france?*

COFFEE & POSTERS

Session 3

15:30 - 16:15 Denis Pelli (New York University), *Converging on a computational model of object recognition: psychophysics and machine learning.*

16:15 - 16:30 Sarah Haigh, *Cross-modal attention and sensory discrimination thresholds in autism*

16:30 - 16:45 Kieth May, *Perceived direction of tilt determined by adaptation to unoriented or untilted binocular stimuli: Surprising predictions of efficient coding theory*

16:45 - 17:00 Ben Harvey, *Generalized visual quantity processing: Topographic representations of object size and relationships with numerosity in human parietal cortex*

17:00 - 17:15 Christopher Tyler, *The Nature of Perceptual Illusions*

DRINKS & POSTERS



Full Program

TALKS

1. Szonya Durant, Istvan Sulykos and Istvan Czigler
Subconscious detection of the orientation statistics within scenes
2. George Mather, Luca Battaglini and Gianluca Campana
TMS reveals dual processing routes for biological motion perception
3. Michael Morgan
A possible Human Polymorphism in Motion Adaptation
4. Keith Langley and Stephen Anderson
Conjugate Riesz Priors for Visual Motion and Spatial Orientation Estimation
5. Hadi Maboudi and Lars Chittka
A neural network model for the dynamics of orientation selectivity neurons in the bee visual system
6. Gioia de Franceschi, Kate Jeffery, Aman Saleem and Samuel Solomon
Freeze or flight: mouse strategies for avoiding capture by overhead threats
7. Annette Allen, Franck Martial and Robert Lucas
Melanopsin contributions to encoding spatial patterns in the mouse visual system
8. Lewis Griffin
What is the size of france?
9. Sarah Haigh, David Heeger, Laurie Heller, Akshat Gupta, Ilan Dinstein, Nancy Minshew and Marlene Behrmann
Cross-modal attention and sensory discrimination thresholds in autism
10. Keith May and Li Zhaoping
Perceived direction of tilt determined by adaptation to unoriented or untilted binocular stimuli: Surprising predictions of efficient coding theory
11. Ben Harvey, Alessio Fracasso, Natalia Petridou and Serge Dumoulin
Generalized visual quantity processing: Topographic representations of object size and relationships with numerosity in human parietal cortex
12. Christopher Tyler
The Nature of Perceptual Illusions

POSTERS

1. Dhanraj Vishwanath, Robert Volcic, Fulvio Domini and Liliana Albertazzi
Focussing and reaching in depth: Evidence linking monocular stereopsis and depth scaling
2. Gunnar Schmidtmann, Frederick Kingdom and Gunter Loffler
The processing of compound Radial Frequency patterns
3. David Kane and Marcelo Bertalmío
Does 'crispening' affect the perceived contrast of artificial and natural textures?
4. Daniel Baker, Natasha Gutmanis, Samantha Harris, Rebecca Kitching, Hollie Melton, Roseanna Norman, Christina Scott, Anika Smith, Kirstie Wailes-Newson and Greta Vilidaite
Nonlinear interactions between steady-state responses to visual stimuli
5. Olga Danilenko, Maris Ozolinsh and Daniel Baker
Time course and interocular transfer of size and contrast adaptation aftereffects
6. Joseph Florey, Steven Dakin and Isabelle Mareschal
Reverse correlation reveals averaging strategies
7. Ahamed Miflah Hussain Ismail, Miles Hansard, Joshua A. Solomon and Isabelle Mareschal
Adaptation to Tilted Scenes
8. Charlotte Harrison, Nicola Binetti, Isabelle Mareschal and Alan Johnston
Effect of stimulus placement and presentation on duration discrimination
9. Ben Hardcastle, Daniel A Schwyn, Karin Bierig and Holger G Krapp
Integration of multiple visual inputs in the blowfly
10. Gavin Perry, Sophie I Georgiou and Krish D Singh
A mystery regarding the visual gamma response to luminance-defined square-wave gratings
11. Aman Saleem, Micheal Krumin, Bilal Haider, Asli Ayaz, Matteo Carandini and Kenneth Harris
On the origin and modulation of narrow-band gamma oscillations in mouse primary visual cortex
12. Erin Goddard, Samuel Solomon and Thomas Carlson
Dynamic encoding of motion and form in population response of primate area MT
13. Agne Mikailionyte, Jan Lauritzen and Barbara Pierscionek
Assessing whether contrast sensitivity remains enhanced 1 month after 40 hours of visual training.
14. Louise O'Hare
Steady-state responses to uncomfortable visual stimuli

POSTERS

15. Karola Panke, Aiga Svede, Wolfgang Jaschinski and Gunta Krumina
Relationship between heterophoria and accommodative lag at distances closer than 40 cm
16. Christina Howard, Victoria Rollings and Amy Hardie
The relationship between motion processing and position updating
17. Ilze Laicane, Jurgis Skilters, Vsevolod Lyakhovetskii, Elina Zimasa and Gunta Krumina
The perception of biological motion in central visual field and near periphery
18. Ryan Maloney, Colin W G Clifford and Isabelle Mareschal
Colour-motion binding and the directional limitations of motion transparency
19. Emmanouil Protonotarios and Lewis Griffin
Discrimination of the order of point patterns depends on presentation parameters
20. Adel Ferrari and Marco Bertamini
Probing Attentional Deployment to Foreground and Background Regions
21. Evan Cesanek, Carlo Campagnoli and Fulvio Domini
Sensorimotor adaptation explains resistance of grasping to visual illusions
22. Ben J. Jennings, Karen Wang, Samantha Menzies and Frederick A.A. Kingdom
Detection of chromatic and luminance Distortions in natural scenes
23. Marina Danilova and John Mollon
Enhancement of hue discrimination at category boundaries? The case of unique red
24. John Mollon
Do we need a new determination of complementary wavelengths?
25. Lauren Welbourne, Freya Lygo, Su Zhao, Fraser Aitken and Alex Wade
Population receptive field (pRF) mapping of chromatic channels



AVA Christmas meeting 2015,
21st December

Program committee:
Isabelle Mareschal (Queen Mary University of London) &
Aman Saleem (University College London)