

LABORATORY OF COMPUTATIONAL NEUROSCIENCE LCN

The Monte Verita workshop on Music in Neuroscience, March 2012 - Program

MONDAY, MARCH 19, 2012

9:00 - 9:10 CSF welcome address and video about the history of Monte Verità

SESSION: COGNITIVE NEUROSCIENCE OF MUSIC

9:10 - 9:30 Tutorial: Music in the Brain, an introduction
(**Stefan Koelsch**)

9:30 - 10:15 **Daniele Schoen**: Temporal Structure in Music and Speech

10:15 *Coffee Break*

10:45-11:30 **Stefan Koelsch**: Measuring the Perception of Music,
(title to be announced)

11:30 -12:15 **Petr Janata**: Mapping Music to Memories in the Human Brain

12:15-14:00 *Lunch Break*

SESSION: SONGBIRD 1

14:00-14:20 Tutorial: Songbirds, bird song, and music (**Richard Hahnloser**)

14:20-15:05 **Coen Elemans**, All singing and dancing. Sound production and its control in birds

15:05-15:30 *Coffee break*

15:30- 16:15 **Constance Scharff**, Do Birds Tango?

16:15 -16:45 **Hollis Taylor**, Birdsong concert
(A concert featuring the songs of the Australian pied butcherbird for violin and field recordings)

EVENING

20:00 Spontaneous Music sessions in rooms Balint, Pioda, Von der Heydt, Mandala, Auditorium

TUESDAY, MARCH 20, 2012

SESSION: AUDITORY NEUROPHYSIOLOGY-1

9:10 - 9:30 Tutorial: Auditory Neurophysiology (**Jan Schnupp**)

9:30 - 10:15 **Israel Nelken**, Music and Primary auditory cortex

10:15 *Coffee Break*

10:45-11:30 **Frank Ohl**, Cortical Neurodynamics of auditory category learning

11:30 -12:15 **Fritz Sommer** Learning in embodied action-perception loops

12:15-14:00 *Lunch Break*

SESSION: MUSICAL STRUCTURE

14:00-14:20 Tutorial: Musical structure and Computational Modeling (**Martin Rohrmeier**)

14:20-15:05 **Martin Rohrmeier**, Musical syntax: Computational and Empirical Perspectives

15:05-15:30 *Coffee break*

15:30- 16:15 **Dezhe Jin**, Bird song syntax: statistical model and neural mechanism

16:15 -17:00 **Shlomo Dubnov**, Musical Surprise Modeling with Audio Oracle

17:00 - 18:30 **POSTER SESSION** (*Balint Room*)

EVENING

20:00 Spontaneous Music sessions in rooms Balint, Pioda, Von der Heydt, Mandala, Auditorium

WEDNESDAY, MARCH 21, 2012

SESSION: AUDITORY NEUROPHYSIOLOGY-2

9:10 - 9:30 Tutorial: Pitch and Tone (**Israel Nelken**)

9:30 - 10:15 **Daniel Bendor**, the representation of pitch in primate auditory

10:15 *Coffee Break*

10:45-11:30 **Jennifer Bizley**, Neural correlates of pitch and timbre perception in ferret auditory cortex

11:30 -12:15 **Nory Jacobi**, Kernel Information Bottleneck as a Metaphor for Music and Art Perception

12:15-14:00 *Lunch Break*

WEDNESDAY AFTERNOON FREE

EVENING SESSION:
TONES, HARMONY, AND MUSIC
(*Balint Room or Auditorium*)

20:00 -20:45 **Leila Schayegh**: Taupe grey and Eyes Wide Shut: A journey into a violinist's mind

20:45 - 21:00 **Eitan Globerson**: my brain as a pianist

THURSDAY, MARCH 22, 2012

SESSION: LEARNING

- 9:10 - 9:40 Tutorial: Tonal Harmony (**Mark Jude Tramo**)
- 9:40 - 10:20 **Mark Jude Tramo:** Neural Coding of Tonal Harmony
- 10:20 *Coffee Break*
- 10:45-11:30 **Surya Ganguli:** (title to be announced)
- 11:30 -12:15 **Richard Hahnloser:** Auditory feedback and song learning
- 12:15-14:00 *Lunch Break*

SESSION: EMOTION

- 14:00-14:20 Tutorial: Huron's theory of emotion in music (**Ofer Tchernichovski**)
- 14:20-15:05 **Ofer Tchernichovski,** Music Theory for Birds:
Searching for Structural Organization in the Interactive Vocalizations of Songbirds
- 15:05-15:30 *Coffee break*
- 15:30- 16:15 **Eitan Globerson,** Psychoacoustic abilities as predictors of vocal emotion recognition in autism
- 16:15 -17:00 **Joel Douek,** speaking the emotional language of music

EVENING:

Public talk and event in ITALIAN LANGUAGE
(and colleagues from the Music Conservatory of Tessin)
(Balint Room)

- 20:30 - 21:15 "Suono e cervello"
public lecture in Italian by **Jan Schnupp**
- 21:15 - 22:00 The Journey of a Musical idea"
public lecture in Italian and musical performance by **Jennifer MacRitchie** and **Giulia Nuti**
- 22:00 Questions, remarks, possible discussion lead by the moderator

EVENING *in parallel:*

- 20:00 Spontaneous Music sessions in rooms Pioda, Von der Heydt, Mandala, Auditorium

FRIDAY, MARCH 23, 2012

SESSION: LEARNING-2

9:30 - 10:15 **Wulfram Gerstner**, The problems of learning temporal structure with spiking neurons

10:15 *Coffee Break*

10:45-11:30 **Jason Kerr**, Outside auditory cortex: optical imaging of neural activity

11:30 -12:15 **Mark Jude Tramo**,
The BIG picture: Functional Brain Organization in Relation to Emotion and Meaning in Music

12:15-13:00 *Lunch Break*

END OF THE MEETING