

## **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*

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#### 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)

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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*

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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)

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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*

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**WEDNESDAY AFTERNOON FREE**  
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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*

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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

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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*

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END OF THE MEETING