

# Circuits and Behavior in Tuscany

[www.neurotuscany.com](http://www.neurotuscany.com)

*The purpose of the meeting is to bring together an international group of scientists who share an interest in understanding the interplay of sensory processing, circuit dynamics and the generation of behavior in the vertebrate brain. A specific focus is on the recording and manipulation of large groups of neurons in an awake and behaving animal. We want to emphasize and encourage open discussion, the sharing of data and specifically encourage the presentation of ongoing projects rather than published results.*

Location: Montecastelli Pisano

[http://it.wikipedia.org/wiki/Montecastelli\\_Pisano](http://it.wikipedia.org/wiki/Montecastelli_Pisano)

Dates: 06/21/2015 – 06/26/2015

## Schedule overview:

	Mon	Tue	Wed	Thu
Morning 1 (9:00-10:00)	Clemens Riegler Rob Johnson Abhinav Grama	Adil Khan T. Kanamori Alex Attinger	Andrew Bolton Mariela Petkova Eva Naumann	Kelly Clancy Petr Znamenskiy M. Leinweber
Break				
Morning 2 (10:30-11:30)	Antonin Blot Morgane Roth Pawel Zmarz	Isaac Bianco Adam Douglass Kris Severi	Y. Han/R. Campbell Ivan Voitov David Mahringer	Thomas Panier Marco del Maschio Koichi Kawakami
Lunch				
Afternoon 1 (15:00-16:00)	Mark Hübener  Evan Feinberg Armin Bahl	Poster Session  Breakout groups Open discussion	14:00-15:00 Plenary lecture Philipp Bonhoeffer “The fragility of Innovation”  buses to Romitorio  “next best thing”	Poster Session  Breakout groups Open discussion
Break				
Afternoon 2 (16:30-17:30)	Caroline Wee Pablo Oteiza Owen Randlett			
Dinner/Break				
Plenary (21:00-22:00)	Misha Ahrens	Concert		Herwig Baier

## Sunday:

18:30 – 20:00:	Dinner
20:30 – 22:00:	Welcome and introductory lecture: <b>Florian Engert</b>

## Monday

### Monday morning (all talks 10 + 5 min):

*Chair: Iris Odstrcil*

9:00 – 10:00:	<b>Clemens Riegler</b> <b>Rob Johnson</b> <b>Abhinav Grama</b>
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10:00 – 10:30	<i>break</i>
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10:30 – 11:30:	<b>Antonin Blot</b> <b>Morgane Roth</b> <b>Pawel Zmarz</b>
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### Lunch:

12:30 – 14:30
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### Monday afternoon (all talks 10 + 5 min):

*Chair: Caroline Wee*

15:00 – 16:00:	<b>Mark Hübener</b> <b>Evan Feinberg</b> <b>Florin Albeanu</b>
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16:00 – 16:30	<i>break</i>
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16:30 – 17:30:	<b>Caroline Wee</b> <b>Pablo Oteiza</b> <b>Owen Randlett</b>
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### Monday evening:

18:30 – 20:00:	<i>Dinner</i>
21:00 – 22:00:	Plenary lecture: <b>Misha Ahrens</b>

# **Tuesday**

Tuesday morning (all talks 10 + 5 min):

*Chair: Eva Naumann*

9:00 – 10:00:                   **Adil Khan**  
   **Takahiro Kanamori**  
   **Alex Attinger**

10:00 – 10:30 break

10:30 – 11:30:                   **Isaac Bianco**  
   **Adam Douglass**  
   **Kris Severi**

Lunch:

12:30 – 14:30

Tuesday afternoon:

15:00 – 17:30:                   ***Breakout session and posters***

Tuesday evening:

18:30 – 20:00:                   *Dinner*  
21:00 – 22:00:                   *Concert*

## **Wednesday**

Wednesday morning (all talks 10 + 5 min):

*Chair: Sonja Hofer*

9:00 – 10:00:                   **Andrew Bolton**  
   **Mariela Petkova**  
   **Eva Naumann**

10:00 – 10:30: break

10:30 – 11:30:                   **Yunyun Han / Rob Campbell**  
   **Ivan Voitov**  
   **David Mahringer**

Lunch:

12:30 – 14:00

Wednesday afternoon:

14:00 – 15:00:                   Plenary lecture **Philipp Bonhoeffer**  
   “**The fragility of Innovation**”

16:00 – 16:30:                   *Shuttles to Romitorio*

15:00 – 22:00:                   *Breakout session, pizza-dinner and discussions in Romitorio*

## **Thursday**

Thursday morning (all talks 10 + 5 min):

*Chair: Georg Keller*

9:00 – 10:00:                   **Kelly Clancy**  
                                 **Petr Znamenskiy**  
                                 **Marcus Leinweber**

10:00 – 10:30 break

10:30 – 11:30:                   **Thomas Panier**  
                                 **Marco del Maschio**  
                                 **Koichi Kawakami**

Lunch:

12:30 – 14:30

Thursday afternoon:

15:00 – 17:30:                   *Breakout session and posters*

Thursday evening:

18:30 – 20:00:                   *Dinner*  
21:00 – 22:00:                   Plenary lecture **Herwig Baier**

## **Friday**

Departure

**Confirmed Speakers – Titles of talks:**

Ahrens, Misha; Janelia Farms  
Why does the fish turn left? Free will and the generation of spontaneous action

Albeanu, Florin; Cold Spring Harbor Laboratories  
Olfactory processing in mice

Attinger, Alex Keller Lab FMI  
Visuomotor learning in visual cortex

Bahl, Armin; Engert Lab Harvard MCB;  
Motion processing in drosophila

Baier Herwig; Baier Lab MPI of Neurobiology  
Processing of visual stimuli by the zebrafish brain

Bianco, Isaac; Bianco Lab UCL  
Visuomotor transformations underlying hunting behavior in zebrafish

Bolton, Andrew; Engert Lab Harvard MCB;  
Detailed kinematics of prey capture in zebrafish

Blot, Antonin; Hofer Lab Biozentrum Basel  
Thalamocortical circuits

Campbell, Rob; Hofer Lab Biozentrum Basel  
Whole-brain tracing of single-cell axonal projections from V1: part I

Feinberg, Evan; Meister Lab Harvard MCB  
Orientation columns in the mouse superior colliculus

Grama, Abhinav; Engert Lab Harvard MCB;  
Integration of newborn neurons into functional circuits

Guggiana-Nil, Drago; Engert Lab Harvard MCB;  
Processing of UV-light in zebrafish larva

Douglass, Adam; University of Utah  
The role of hypothalamic dopaminergic neurons in motor behavior

Dunn, Timothy; Engert Lab Harvard MCB;  
Why does the fish turn left? Free will and the generation of spontaneous action

Johnson, Robert; Engert Lab Harvard MCB;  
The Beast in action: high resolution imaging of fish behavior in large arenas

Kawakami, Koichi; NIG Mishima  
The study of amygdala and hippocampus functions in zebrafish

Kelly Clancy; Hofer Lab Biozentrum Basel  
Project idea: volitional control in mice.

Khan, Adhil; Mrsic Lab Biozentrum Basel  
Interneuron activity dynamics in visual cortex during behaviour and learning.

Haesemeyer, Martin; Engert Lab Harvard MCB  
Temporal receptive fields of heat perception in larval zebrafish

Han Yunyun; Hofer Lab Biozentrum Basel  
Whole-brain tracing of single-cell axonal projections from V1: part I

Huang, Kuo-Hua; Friedrich lab, FMI  
Methods to study neural control of social behaviors in adult zebrafish

Hübener, Mark; MPI of Neurobiology, Martinsried  
Transplanted embryonic neurons integrate into functional circuits in visual cortex

Kanamori, Takahiro; Hofer Lab Biozentrum Basel  
Higher-order logic of cortical long-range projections

Kawakami, Koichi; National Institute of Genetics, Mishima, Japan  
The study of amygdala and hippocampus functions in zebrafish

Khan, Adhil; Mrsic Lab Biozentrum Basel  
Interneuron activity dynamics in visual cortex during behaviour and learning.

Leinweber, Marcus; Keller Lab FMI  
Beyond visual signals in visual cortex

Mahringer, David; Keller Lab FMI  
Impact of first light exposure on motor-related activity in primary visual cortex

Naumann, Eva; Engert Lab Harvard MCB;  
Binocular motion processing in larval zebrafish

Odstrcil, Iris; Engert Lab Harvard MCB;  
Reafference and the lateral line

Okamoto, Hitoshi Riken Institute Tokyo  
The neural basis of fear, anxiety and disappointment

Oteiza, Pablo; Engert Lab Harvard MCB;  
Rheotaxis in Zebrafish

Panier, Thomas      Engert Lab      Harvard MCB  
"Learning in large mammals"

Petkova, Mariela;      Engert Lab      Harvard MCB;  
Quantifying neurogenesis in the larval zebrafish

Randlett, Owen;      Engert Lab      Harvard MCB  
Whole-brain activity mapping onto a zebrafish brain atlas

Riegler, Clemens;      Engert Lab      Harvard MCB;  
Diverse visual processing channels in the fish retino-tectal system

Roth, Morgane;      Mrsic Lab      Biozentrum Basel  
The mouse pulvinar

Severi, Kris      Wyart Lab,      ICM, Paris  
Using genetically expressed Botulinum toxin to silence neurons in larval zebrafish

Voitov, Ivan; Hofer Lab Biozentrum Basel  
New behavioural paradigms in mice

Wee, Caroline; Engert Lab Harvard MCB  
Satiation-state dependent regulation of appetite by zebrafish serotonergic circuits

Zmarz, Pawel;      Keller Lab      FMI  
Sensorimotor intercourse

Znamenskiy, Petr;      Mrsic Lab      Biozentrum Basel  
Transcriptional identity of visual cortical neurons