

# **Circuits and Behavior in Tuscany**

**Dates: 06/17/2018 – 06/22/2018**

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 insect and 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

For directions etc go to [http://it.wikipedia.org/wiki/Montecastelli\\_Pisano](http://it.wikipedia.org/wiki/Montecastelli_Pisano)

# Schedule

	Mon	Tue	Wed	Thu
Breakfast (9:00- 10:30)				
Morning (10:30-11:50)	4xTalk	4xTalk	4xTalk	4xTalk
Lunch Afternoon 1 (15:00-16:00)	3xTalk	Breakout groups Open discussion	Breakout groups Open discussion	<b>the next best thing</b> break-out discussion groups  at Romitorio Pizza party
Break Afternoon 2 (16:30-17:30)	3xTalk			
Dinner/Break <b>Plenary (21:00-22:00)</b>	<b>Introduction</b>	<b>Plenary</b>	<b>Concert</b>	<b>Plenary</b>

# **Sunday**

**12:00 – 17:00:      Arrival**

**18:30 – 20:00:      Dinner**

**21:00 – 22:00:      Welcome and Introductory Remarks  
Florian Engert**

# **Monday**

## **10:30 – 11:50 (Chair: Armin Bahl)**

10:30 – 10:50: Beiza, Natalia  
TBD

10:50 – 11:10: Free time

11:10 – 11:30: Boulanger, Jonathan  
TBD

11:30 – 11:50: Candelier, Raphael  
The behavior of young zebrafish in complex flows

----- **Lunch** -----

## **15:00 – 16:00: (Chair: Dupre, Christophe)**

15:00 – 15:20: Fitzgerald, James  
Efficient coding of sensory stimuli driving behaviour

15:20 – 15:40: Gallois, Benjamin  
Chemical preferences of the young zebrafish

15:40 – 16:00: Fotowat, Haleh  
Habituation of looming evoked escape behaviors

----- Break -----

16:30 – 16:50: Harpaz, Roy  
TBD

16:50 – 17:10: Böhm, Urs Lucas  
TBD

17:10 – 17:30: Le Goc, Guillaume  
Behaviour and neural activity of a zebrafish larvae in hot and cold waters

----- **Dinner** -----

**21:00 – 22:00: plenary lecture**  
**Benjamin de Bivort Individuality and Personality in Fruit flies**

# Tuesday

## 10:30 – 11:50 (Chair: Haleh Fotowat)

10:30 – 10:50: Armin Bahl

Neuronal mechanisms of evidence accumulation and decision making in the larval zebrafish

10:50 – 11:10: Dupre, Christophe

Scalability in the nervous system of *Hydra vulgaris*

11:10 – 11:30: del Bene, Filippo

An inter-hemispheric neural circuit in the zebrafish optic tectum required for efficient prey hunting

11:30 – 11:50: Panier, Thomas

High-speed imaging: trading pixels for higher frame rate.

----- **Lunch** -----

**Breakout Sessions – free time**

----- **Dinner** -----

**21:00 – 22:00:**

**Philipp Bonhoeffer**

**plenary lecture**

# **Wednesday**

## **10:30 – 11:50 (Chair: Roy Harpaz)**

10:30 – 10:50: Rajan, Gokul

Vision to Locomotion in Evolution: Comparative Behavioral Neurophysiology in  
*Danio rerio* and *Danio rerio*

10:50 – 11:10: Smith, Matthew

Individual-to-individual variation in naïve and learned behaviors within isogenic  
*Drosophila melanogaster* populations

11:10 – 11:30: Trentesaux, Hugo

Behavioural study of multisensorial integration for postural stabilisation in larval  
zebrafish

11:30 – 11:50: Vohra, Sumit

TBD

----- **Lunch** -----

**Breakout Sessions – free time**

----- **Dinner** -----

**21:00 – 22:00:**

**Concert**

# Thursday

**10:30 – 11:50 (Chair: Jonathan Boulanger)**

10:30 – 10:50: Vogt, Katrin

The “hangry” fly larva: Internal state modulation of olfactory processing

10:50 – 11:10: Xiao, Will

Visualizing Visual Neural Networks—Using A Generative Neural Network to Synthesize Preferred Stimuli of Visual Neurons

11:10 – 11:30: Yang, En

TBD

11:30 – 11:50: Ponce-Alvarez, Adrian

TBD

----- **Lunch** -----

**Locate to Romitorio – discussion groups**

**Pizza Party**

----- **Dinner** -----

**21:00 – 22:00:**

**plenary lecture**

**Florian Engert**

**Do fish feel pain: Internal states in larval zebrafish**

# Friday

Departure

### Confirmed Speakers – Titles of talks:

Bahl, Armin	Neuronal mechanisms of evidence accumulation and decision making in the larval zebrafish
Beiza, Natalia	TBD
Boulanger, Jonathan	TBD
Candelier, Raphael	The behavior of young zebrafish in complex flows
deBivort, Benjamin	TBD
del Bene, Filippo	An inter-hemispheric neural circuit in the zebrafish optic tectum required for efficient prey hunting
Dupre, Christophe	Scalability in the nervous system of <i>Hydra vulgaris</i>
Fitzgerald, James	Efficient coding of sensory stimuli driving behavior
Foianini, Stephan	TBD
Gallois, Benjamin	Chemical preferences of the young zebrafish
Harpaz, Roy	TBD
Hege, Hans-Christian	TBD
Le Goc, Guillaume	Behaviour and neural activity of a zebrafish larvae in hot and cold waters
Panier, Thomas	High-speed imaging: trading pixels for higher frame rate.
Rajan, Gokul	Vision to Locomotion in Evolution: Comparative Behavioral Neurophysiology in <i>Danionella translucida</i> and <i>Danio rerio</i>
Smith, Matthew	Individual-to-individual variation in naïve and learned behaviors within isogenic <i>Drosophila melanogaster</i> populations
Trentesaux, Hugo	Behavioural study of multisensorial integration for postural stabilisation in larval zebrafish
Vohra, Sumit	TBD
Vogt, Katrin	The “hangry” fly larva: Internal state modulation of olfactory processing
Xiao, Will	Visualizing biological neural network
Böhm, Urs Lucas	TBD
Ponce-Alvarez, Adrian	TBD
Fotowat, Haleh	Habituation to looming stimuli in larval zebrafish
Böhm, Urs Lucas	TBD