

# GDR 2904 Multielectrodes

5th Annual Meeting

October 14-15, 2014  
Imagif, CNRS Gif sur Yvette  
[gdr2904gif.sciencesconf.org](http://gdr2904gif.sciencesconf.org)

## Keynote Speakers

Alain de Cheveigné  
Sonja Grün  
Fabian Kloosterman  
Jean-Philippe Lachaux  
Stefano Panzeri  
Alexa Riehle  
Anton Sirota  
Michael Zugaro

Organization committee: Jean-Marc Edeline, Valérie Ego-Stengel, Isabelle Férézou, Luc Foubert, Boris Gourévitch, Chloé Huetz, Pauline Kerekes, Claire Martin, Daniel Shulz  
Administration: Justine Dionisi & Aline Ginois



## Tuesday, October 14, 2014

09:00 – 9:25 Registration

### Session 1 - Methodology

Chair: Clément Léna

09:25 – 09:30 Welcome: Valérie Ego-Stengel (UNIC, Gif sur Yvette)  
09:30 – 10:20 **Guest speaker:** Fabian Kloosterman (Nerf, Belgium)  
*Neural population decoding of hippocampal memory replay*  
10:20 – 10:45 **Invited speaker:** Alain de Cheveigné (ENS Paris)  
*Navigating, cleaning, and analyzing multichannel data*

10:45 – 11:05 **Coffee break - POSTERS and EXHIBITS**

11:05 – 12:05 **Fanny Lebreton** (CBMN, Bordeaux)  
*Isletchip for Pancreatic Endocrine Cells: From Bench to Bedside*  
**Bartosz Telenczuk** (UNIC, Gif sur Yvette)  
*On local origins of local-field potentials*  
**Marcel Carrère** (INS, Marseille)  
*Probing resting-state activity with TMS to evaluate under networks properties and virtual brain comparison*

12:05 – 12:30 **Blitz session by students** willing to present briefly their posters

12:30 – 14:00 **Lunch (CNRS cafeteria, salle Automne) - POSTERS and EXHIBITS**

### Session 2 - Neuronal code

Chair: Thomas Boraud

14:00 – 14:50 **Guest speaker:** Stefano Panzeri (IIT, Italy)  
*Using non-negative matrix factorization for the analysis of large scale population spike trains*  
14:50 – 15:15 **Invited speaker:** Michael Zugaro (Collège de France, Paris)  
*Reversed theta sequences of hippocampal cell assemblies during backward travel*

15:15 – 16:45 **Coffee break - POSTERS and EXHIBITS**

16:45 – 18:05 **Luc Estebanez** (MDC, Berlin)  
*Modulation of tactile sensory responses during a sensory-triggered decision task in mouse forepaw primary motor cortex*  
**David Robbe** (INMED, Marseille)  
*The dorsolateral striatum constrains the execution of motor habits through continuous integration of contextual and kinematic information*  
**Julien Bastin** (INSERM, Grenoble)  
*Executive control by human subthalamic nucleus*  
**Julien Fournier** (Max Planck, Frankfurt)  
*Hidden Spatial Selectivity of Receptive Fields in Turtle Visual Cortex*

18:05 – 18:30 **Exhibitors presentations**

18:30 – 19:30 **General assembly of the GDR2904**

Director: Pierre Meyrand, Vice-Director: Daniel Shulz, Director (2015): Clément Léna

**DINNER at LA FERME DU BOUT DES PRES, Cernay la Ville, sponsored by TDT and Neuralynx**  
*(meeting at 19h30 in front of the IMAGIF building to get on the shuttle bus)*

## Wednesday, October 15, 2014

### Session 3 - Network dynamics

Chair: Frédéric Chavane

- 09:00 – 9:50 **Guest speaker: Sonja Grün** (Jülich, Germany)  
*Title to be announced*
- 09:50 – 10:15 **Invited speaker: Jean-Philippe Lachaux** (CRNL, Lyon)  
*ECOG signature of large-scale functional connectivity in the brain*
- 10:15 – 11:00 **Coffee break - POSTERS and EXHIBITS**
- 11:00 – 12:00 **Maria Spolidoro** (ENS, Paris)  
*The cerebellum, an actor of sensorimotor integration in the control of voluntary movement*  
**Srdjan Ostojic** (ENS, Paris)  
*Two types of asynchronous activity in networks of excitatory and inhibitory neurons*  
**Brice Bathellier** (UNIC, Gif sur Yvette)  
*Neuronal population correlate of asymmetric auditory perception in mice*
- 12:00 – 12:05 **François Cabestaing**  
*Toward the emergence of a French R&D network on Brain-Computer Interfaces*
- 12:05 – 13:30 **Lunch (CNRS cafeteria, salle Automne) - POSTERS and EXHIBITS**

### Session 4 - Cortical networks

Chair: Karim Benchenane

- 13:30 – 14:20 **Guest speaker: Anton Sirota** (Munich, Germany)  
*Dissection of oscillatory dynamics in entorhino-hippocampal circuits  
or how to know that we know nothing*
- 14:20 – 14:45 **Invited speaker: Alexa Riehle** (INT, Marseille)  
*Variability statistics of spiking activity in motor cortical neurons during wait and movement*
- 14:45 – 15:15 **Coffee break - POSTERS and EXHIBITS**
- 15:15 – 16:15 **Lucille Tallot** (CNPS, Orsay)  
*Temporal expectancy in fear conditioning: an analysis of local field potential  
in the amygdalo-prefronto-striatal network early in training*  
**Bjorg Kilavik** (INT, Marseille)  
*The ups and downs of beta oscillations in monkey motor cortex*  
**Azeez Adebimpe** (GRAMFC, Amiens)  
*Brain networks and functional connectivity in benign childhood epilepsy*
- 16:30 Concluding Remarks
- END OF THE MEETING*

## EXHIBITORS LIST



**ALPHA OMEGA**

<http://www.alphaomega-eng.com/>



**BLACKROCK**

<http://www.blackrockmicro.com/>



**MULTICHANNEL SYSTEMS**

<http://www.multichannelsystems.com/>



**NEURALYNX**

<http://neuralynx.com/>



**PLEXON**

<http://www.plexon.com/>

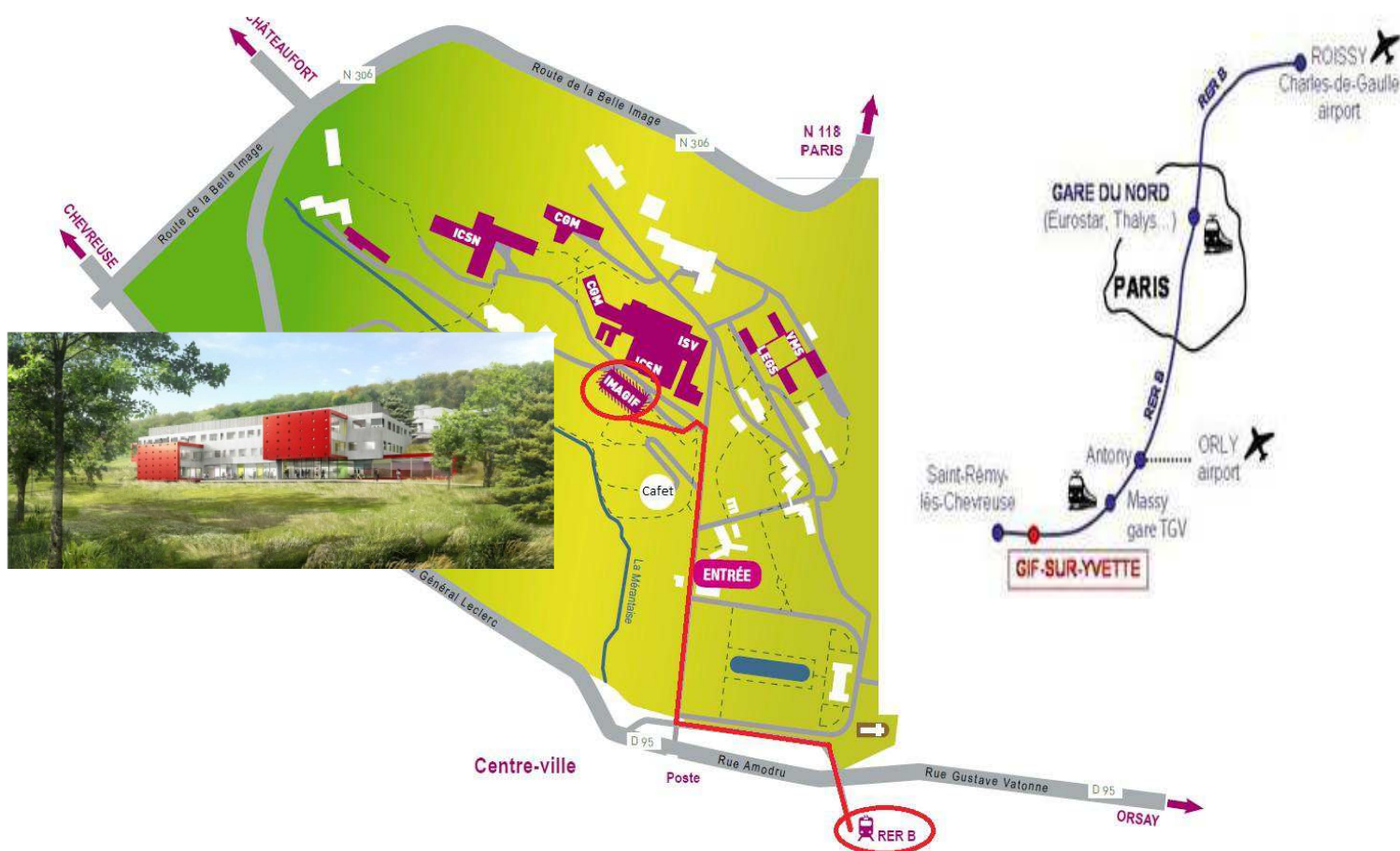


**TUCKER DAVIS TECHNOLOGIES**

<http://www.tdt.com/>

The GDR2904 committee gratefully thanks the exhibitors companies for their support to this event.

## CONFERENCE ACCESS MAPS and DIRECTIONS



**BY TRAIN:** from Paris, get on the **RER-B** to **Gif sur Yvette** (direction: St Remy-lès-Chevreuse, 1 train every 15min)  
(Expect about **1h15** from « Chatelet les Halles » to reach the conference place, including 15 mn walking from the RER station)

**CONFERENCE PLACE:** **IMAGIF (Bat 21, red building), CNRS campus de Gif sur Yvette,**  
1 Avenue de la Terrasse, 91190 Gif sur Yvette.