

# Learning and Plasticity in Neuronal Networks

## PSL-Qlife Winter School in Quantitative Biology – March 25<sup>th</sup>-29<sup>th</sup> , 2024

Monday, March 25<sup>th</sup>

9:00 - 9:20 am **L. Bourdieu, P. Charnay**  
Introduction

9:20 - 10:10 am **Nicolas Gervasi**  
TBA

10:10 - 11:00 am **Laurent Bourdieu**  
TBA

11:00 - 11:30 am *Coffee break - Room 305*

11:30 - 12:20 pm **Laëtitia Mony**  
Optopharmacological approaches for in vivo control of brain receptors

12:20 - 1:45 pm *Lunch Room 305*

1:45 - 2:45 pm  
**Students flash talks**

2:45 - 6:00 pm Digital workshop <b>Design of learning protocols</b> K. Benchenane	2:45 - 6:00 pm Digital workshop <b>Behavior analysis tools</b> N. Gervasi	2:45 - 6:00 pm Workshop <b>Methods of optopharmacological control of neuronal physiology and animal behavior</b> L. Mony
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6:00 - 6:30 pm *Coffee break - Room 305*

6:30 - 7:30 pm **Anne Urai**  
TBA

Tuesday, March 26<sup>th</sup>

9:00 - 9:50 am  
**Aurélien Wyngaard & Boris Barbour**  
TBA

9:50 - 10:40 am **Guillaume Dugué**  
TBA

10:40 - 11:10 am *Coffee break - Room 305*

11:10 - 12:10 pm **Anne Urai**  
TBA

12:10 - 1:30 pm *Lunch Room 305*

1:30 - 4:30 pm Digital workshop <b>Calcium imaging</b> S. Wolf A. Lourdiane	1:30 - 4:30 pm Digital workshop <b>Electrophysiology and Spike sorting and cell identification</b> A. Wyngaard	1:30 - 4:30 pm Workshop <b>Methods of optopharmacological control of neuronal physiology and animal behavior</b> L. Mony
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4:30 - 5:00 pm *Coffee break - Room 305*

5:00 - 6:00 pm **Alexandre Mourot**  
TBA

6:00 - 8:00 pm  
**Poster session I  
Wine & Cheese**

Wednesday, March 27<sup>th</sup>

9:00 - 10:30 am  
**Yves Boubenec & Alex Cayco Gajic**  
TBA

10:30 - 11:00 am *Coffee break - Room 305*

10:00 - 12:00 pm **Christian Machens**  
TBA

12:00 - 1:30 pm *Lunch Room 305*

1:30 - 4:30 pm Digital workshop <b>PCA dimensionality reduction</b> Y. Boubenec	1:30 - 4:30 pm Digital workshop <b>Advanced dimensional reduction</b> A. Cayco Gajic
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4:30 - 5:00 pm *Coffee break - Room 305*

5:00 - 6:00 pm **Kishore Kuchibhotla**  
TBA

7:30 pm  
**Speakers / TAs dinner**

Thursday, March 28<sup>th</sup>

9:00 - 10:15 am **Rémi Monasson**  
TBA

10:15 - 10:45 am *Coffee break - Room 305*

10:45 - 12:00 pm **Srdjan Ostojic**  
TBA

12:00 - 1:30 pm *Lunch Room 305*

1:30 - 4:30 pm Digital workshop <b>Hebbian learning 1</b> R. Monasson F. Schönsberg	1:30 - 4:30 pm Digital workshop <b>Linking structure and function in recurrent neural networks 1</b> S. Ostojic J. Barbosa
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4:30 - 5:00 pm *Coffee break - Room 305*

5:00 - 6:00 pm **Karim Benchenane**  
TBA

6:00 - 7:00 pm  
**Poster session II**

7:00 - 8:00 pm  
**Cocktail**  
*Room 305*

Friday, March 29<sup>th</sup>

9:00 - 10:00 am **Lisa Roux**  
TBA

10:00 - 11:00 am *Coffee break - Room 305*

11:00 - 12:00 pm **Nathalie Rochefort**  
TBA

12:00 - 1:30 pm *Lunch Room 305*

1:30 - 4:30 pm Digital workshop <b>Hebbian learning 2</b> R. Monasson F. Schönsberg	1:30 - 4:30 pm Digital workshop <b>Linking structure and function in recurrent neural networks 2</b> S. Ostojic J. Barbosa
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4:30 - 5:00 pm *Coffee break - Room 305*

5:00 - 6:00 pm **Athena Akrami**  
TBA

6:00 - 6:30 pm  
**Conclusion**