

EDUCATION

- 2010 Gatsby Unit, UCL London
PhD, Computational Neuroscience and Machine Learning
- 2014 Princeton University Princeton
BA, Mathematics (full scholarship)

POSTDOCTORAL EXPERIENCE

- 2014- UCL London
with Kenneth Harris and Matteo Carandini

PUBLICATIONS

[Google scholar profile](#)

- 2016 **Pachitariu***, Stringer*, Okun, Bartho, Harris, Latham, Sahani and Lesica *eLife*
[Inhibitory control of shared variability in cortical networks](#) (in press, preprint available)
- Pachitariu**, Steinmetz, Kadir, Carandini and Harris *NIPS*
[Fast and accurate spike sorting of high-channel count probes with Kilosort](#)
- 2015 Poort*, Khan*, **Pachitariu**, ..., Sahani, Keller, Mrcsic-Flogel and Hofer *Neuron*
[Learning enhances sensory and multiple non-sensory representations in primary visual cortex](#)
- Pachitariu**, Lyamzin, Sahani and Lesica *J Neuroscience*
[State-dependent population coding in primary auditory cortex](#)
- 2013 **Pachitariu**, Petreska and Sahani *NIPS*
[Recurrent linear models of simultaneously-recorded neural populations](#)
- Pachitariu**, Pettit, Dagleish, Packer, Hausser and Sahani *NIPS*
[Extracting regions of interest from biological images with convolutional sparse block coding](#)
- M Pachitariu** and M Sahani *arXiv*
[Regularization and nonlinearities for neural language models: when are they needed?](#)
- 2012 **Pachitariu** and Sahani *NIPS*
[Learning visual motion in recurrent neural networks](#)

PREPRINTS

- Pachitariu**, Steinmetz, Kadir, Carandini and Harris *bioRxiv*
[Kilosort: realtime spike-sorting for extracellular electrophysiology with hundreds of channels](#)
- Pachitariu**, Stringer, Schroder, Dipoppa, Rossi, Carandini and Harris *bioRxiv*
[Suite2p: beyond 10,000 neurons with standard two-photon microscopy](#)
- Dipoppa, Ranson, Krumin, **Pachitariu**, Carandini and Harris *bioRxiv*
[Vision and locomotion shape the interactions between neuron types in mouse visual cortex](#)

THESES

- 2015 **Pachitariu** *PhD*,
UCL
[Neural dynamics in cortical populations](#)

2010 **Pachitariu**
Spike train statistics

BA, Princeton

CONFERENCE POSTERS

CoSyNe 2011 (x1), 2013 (x1), 2014 (x4), 2015 (x2), 2016 (x1)

SfN 2015 (x2), 2016 (x6)

NIPS 2012 (x1), 2013 (x2), 2016 (x1)

CONFERENCE TALKS (ACCEPTED ORALS)

2016 Stringer, Okun, Bartho, Harris, Latham, Sahani, Lesica and **Pachitariu** CoSyNe
Inhibitory control of correlated cortical variability

2015 **Pachitariu**, Ames, Yu, Santhanam, Ryu, Shenoy and Sahani CoSyNe
Single-trial motor and cortical variability are tightly and bi-directionally coupled

INVITED TALKS

2012 Redwood Institute, Berkeley

2014 Tricenter theory meeting, Columbia, UCL & Hebrew

2015 Institute of Ophthalmology, UCL

2016 Deep Mind

2016 NYU

2016 SWC+TENSS workshop, UCL & Romania

2016 CSHL

WORKSHOPS

2011 *Probabilistic models of cognition* IPAM UCLA

2012 *Deep learning summer school (first edition)* IPAM UCLA

2016 *Junior Scientist Workshop on Neural Circuits and Behavior* HHMI Janelia

AWARDS

International Mathematics Olympiad '05, '06 - two bronze medals

Balkan Mathematics Olympiad '02, '04, '05, '06 - one gold, two silver, one bronze

International Mathematics Contest for university students '07, '08 - two second prizes

Romanian National Mathematics Olympiad and IMO Training Team '01-'06

REFERENCES

Kenneth Harris	Professor	UCL	kenneth.harris@ucl.ac.uk
Matteo Carandini	Professor	UCL	m.carandini@ucl.ac.uk
Peter Dayan	Professor	Gatsby Unit, UCL	dayan@gatsby.ucl.ac.uk
Maneesh Sahani	Professor	Gatsby Unit, UCL	maneesh@gatsby.ucl.ac.uk
Carlos Brody	Professor	Princeton University	brody@princeton.edu