# Luigi Petrucco

graduate student @ Portugues lab Max Planck Institute for Neurobiology

## DETAILS

birth 22/11/1992, Italy

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github github.com/vigji website vigji.github.io

## EXPERIENCE

Sept. 2017 - ongoing	Ph.D. at <b>Max Planck Institute of Neurobiology</b> (München, Germany) Sensorimotor control in the zebrafish cerebellum Supervisor: Dr. Ruben Portugues
Oct. 2014 – Sept. 2016	Master Thesis at <b>Scuola Normale Superiore</b> (Pisa, Italy) Slow-wave oscillations and visual processing in a mouse model of epilepsy Supervisor: Prof. Gian M. Ratto
Jul. – Sept. 2015	Research Internship at <b>Harvard University</b> (Cambridge, Massachusetts) Imaging the cortico-thalamic circuit in mouse models of altered plasticity Supervisor: Dr. Takao K. Hensch
Jul Oct. 2013	Research Internship at <b>Max Planck Institute for Chemical Ecology</b> (Jena, Germany) Gene expression analysis of olfactory receptors in the moth <i>M. sexta</i> Supervisor: Dr. Ewald Grosse-Wilde

## EDUCATION

2016 – ongoing	Graduate School in Systemic Neuroscience at LMU (München, Germany)
2011 – 2016	Diploma di Licenza in Biology at <b>Scuola Normale Superiore</b> , (Pisa, Italy)
2014 – 2016	Master Degree in Neurobiology at <b>University of Pisa</b> (Pisa, Italy) 110/110 <i>cum laude</i>
2011 - 2014	Bachelor's Degree in Biology at University of Pisa (Pisa, Italy) 110/110 cum laude
2006 – 2011	High School Diploma at Liceo Scientifico G. Marinelli (Udine, Italy) 100/100

## PUBLICATIONS

2020	Markov, D. A., Kist, A. M., <b>Petrucco, L.</b> , & Portugues, R. (2020). The cerebellum recalibrates a feedback controller involved in motor control. [ <i>submitted</i> ] preprint at <i>bioRxiv</i> : doi.org/10.1101/2020.02.12.945956.
2019	Štih, V.*, <b>Petrucco</b> , <b>L.</b> *, Kist, A. M., & Portugues, R. (2019). Stytra: an open-source, integrated system for stimulation, tracking and closed-loop behavioral experiments. <i>PLoS computational biology</i> , 15(4), e1006699.
2018	Landi, S., <b>Petrucco</b> , <b>L.</b> , Sicca, F., & Ratto, G. M. (2019). Transient cognitive impairment in epilepsy. <i>Frontiers in molecular neuroscience</i> , 11, 458.
2017	<b>Petrucco</b> , <b>L.*</b> , Pracucci, E.*, Brondi, M., Ratto, G. M., & Landi, S. (2017). Epileptiform activity in the mouse visual cortex interferes with cortical processing in connected areas. <i>Scientific reports</i> , 7(1), 1-12.

<sup>\*</sup>authors contributed equally

## OPEN SOURCE SOFTWARE

Stytra: a modular package for stimulus generation, online behavioral tracking and hardware control for zebrafish neuroscience experiments.

BrainGlobe: a python toolbox for morphological analyses in systems neuroscience.

#### ADVANCED TRAINING

Jul. 2017 Cajal Course - Interacting with Neural Circuits (Lisbon, Portugal)

Aug. 2016 | Cajal Course - Computational Neuroscience (Lisbon, Portugal)

#### LABORATORY SKILLS

Imaging Light-sheet microscopy of behaving zebrafish, *in vivo* and *in slice* voltage-sensitive dye and

calcium imaging by two-photon microscopy in mice and zebrafish. Familiarity with the

aligment and maintenance of light-sheet and two-photon microscopes.

Electrophysiology | In vivo local-field-potential and single cell recordings in anesthetized mice and paralyzed

zebrafish; some experience with whole-cell recordings in slice.

Molecular Biology Cloning, transgenic zebrafish generation by embryo injections.

## **COMPUTER SKILLS**

Operative Systems Familiarity with Windows, Mac, and Linux

Programming Languages | Proficiency with MATLAB and Python; Qt based-GUI design; ImageJ scripting;

fundamentals of R and Julia; C in Arduino applications; LabView

Others | Advanced user of software for image manipulation (Photoshop, Gimp), professional design

(Illustrator, InDesign, Inkscape), 3D modelling (Blender), and LateX.

#### **AWARDS**

Jul 2015 **Armenise-Harvard Fellowship** (Armenise-Harvard Foundation)

Jun 2013 RISE Scholarship (German Academic Exchange Service - DAAD)

Sept 2011 Full maintenance 5-years scholarship (Scuola Normale Superiore)

#### LANGUAGES

Native Italian

Proficient User English

Beginner German