CALL FOR APPLICATIONS

This School will introduce participants to the Brain Simulation Platform (BSP) of the Human Brain Project (HBP), with the main aim to train users on how to exploit the possibilities offered by the Platform to implement cellular level computational models, to use High Performance Analytics and Computing Platform systems to configure and run a simulation, and to visualise/analyse the results. Both short lectures and longer afternoon activities will be delivered at a basic and intermediate level. Through tutorials and hands-on activities, attendees will learn how to interact with the BSP to carry out their own research, to set up and manage a data-driven collaborative project, or to use the BSP to interact with the HBP Neuroinformatics Platform. Participants will be encouraged to introduce new ideas and suggest ways to use their original experimental data/techniques to implement/use the multiscale neural model they would like to investigate.

Application information

Application is open to the entire student community and early career researchers, regardless of whether they are affiliated with the Human Brain Project or not.
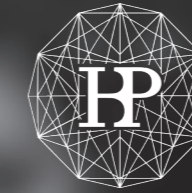**Applications from young female investigators are highly encouraged.**

A maximum of 50 participants will be selected by the Scientific Chair and the HBP Education Programme in a competitive selection process based on academic merit. Participants are required to submit an abstract on their current research, a CV and a motivation letter with their application.

Application deadline: **11 July 2018**

Participation fee: 400 €

The fee does not include travel and accommodation. Fees will be collected after participants have been selected.

Registration fee waivers are available for a maximum of three participants. Participants can apply for fee waivers prior to the application deadline by sending an email to education@humanbrainproject.eu.

Scientific Chair:
Michele Migliore | Italian National Research Council

Organisers:
Alessia Bonafede | Italian National Research Council
Viktoria Tipotsch | Medical University Innsbruck

Contact:
education@humanbrainproject.eu

For more information and application visit:
http://bit.ly/2FBL3ih

Consiglio Nazionale delle Ricerche

MEDIZINISCHE UNIVERSITÄT INNSBRUCK

Human Brain Project

Co-funded by the European Union

Human Brain Project
Education Programme

HBP SCHOOL
THE BRAIN SIMULATION PLATFORM OF THE HUMAN BRAIN PROJECT

17-21 SEPTEMBER 2018
MONDELLO (PALERMO), ITALY

**APPLICATION DEADLINE:
11 JULY 2018**

@hbpeducation

@hbp_education

HBP Education

HBP Education Programme

https://education.humanbrainproject.eu/

PRELIMINARY SCIENTIFIC PROGRAMME

Monday 17 September 2018:

Welcome and introduction to the HBP School **|** 30 min
Michele Migliore (Italian National Research Council)

First steps into the Brain Simulation Platform (BSP) **|** 60 min
Luca Leonardo Bologna (Italian National Research Council)

The Collaboratory **|** 60 min
Annapaola Santarsiero (EPFL)

Hands-on session: Electrophysiological features extraction (theory and practice) **|** 180 min
Luca Leonardo Bologna, Rosanna Migliore (Italian National Research Council)

Tuesday 18 September 2018:

Scientific drive: Single cell modelling **|** 90 min
Michele Migliore (Italian National Research Council)

Single cell model optimisation: Algorithms and methods **|** 60 min
Carmen Alina Lupascu, Stefano Masoli (Italian National Research Council/University of Pavia)

Hands-on session: Build your own cell model (theory and practice) **|** 120 min
Carmen Alina Lupascu, Rosanna Migliore, Stefano Masoli (Italian National Research Council/
University of Pavia)

ELSEVIER – Journal of Neuroscience Methods Workshop:
How to get a paper published, read & cited **|** 60 min
Giuseppe Di Giovanni (Editor in Chief, ELSEVIER)

Wednesday 19 September 2018:

Scientific drive: Circuit models - the Hippocampus and the Cerebellum **|** 90 min
Armando Romani, Egidio D'Angelo (EPFL/University of Pavia)

Circuit modelling pipeline **|** 60 min
Jean-Denis Courcol (EPFL)

Hands-on session: Circuit analysis (theory and practice) **|** 120 min
Armando Romani, Jean-Denis Courcol, Claudia Casellato (EPFL/University of Pavia)

ELSEVIER – Journal of Neuroscience Methods Workshop:
How to get a paper published, read & cited **|** 60 min
Giuseppe Di Giovanni (Editor in Chief, ELSEVIER)

Giuseppe **DI GIOVANNI**
WORKSHOP
"How to Get a Paper Published, Read & Cited"
ELSEVIER | JOURNAL OF NEUROSCIENCE METHODS
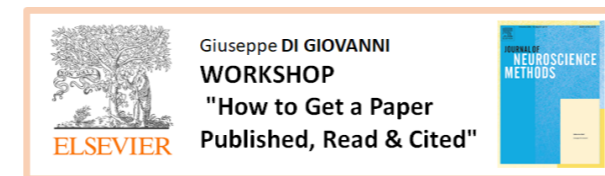
Thursday 20 September 2018:

Technical drive: The architecture of the BSP **|** 90 min
Felix Schürmann (EPFL)

Technical drive: Using NEURON+Python for parallel simulations **|** 60 min
Michael Hines (Yale School of Medicine)

Hands-on session: Implement and run NEURON on the Collaboratory **|** 150 min
Carmen Alina Lupascu, Michael Hines (Italian National Research Council/Yale School of Medicine)

The science behind the Human Brain Project **|** 60 min
Felix Schürmann (EPFL)

Friday 21 September 2018:

Technical drive: Interacting with High Performance Computing (HPC) systems **|** 90 min
Carmen Alina Lupascu (Italian National Research Council)

How to write an HPC proposal: Success stories **|** 60 min
Michele Migliore (Italian National Research Council)

Student presentations **|** 120 min

General discussion and conclusions **|** 60 min