

12-15 November 2019

*BrainHack Global: brain asymmetries edition*



Brain-hack GLOBAL in Padova: Brain Asymmetries Edition is sponsored by and will be held at the University of Padova, Department of General Psychology - CN2 M.Sc. Degree programme, Via Venezia 8, 35131 Padua, Italy

Additional support comes from Padova Neuroscience Center (PNC)

**Sorry the event is sold out!**

**Plenary sessions will take place in Room 4S.**

**Hacking sessions will be happening in Rooms 4S, DPSS1 (when available), Student Hall at the Polo Didattico di Psicologia and at VIMM.**

Brain-hack aims at promoting the interaction between scientists, developers, and artists interested in the brain. Questions can evolve around the investigation of brain anatomy and function based on non-invasive imaging methods (e.g. MRI, nTMS) and intraoperative brain mapping methods, or post mortem dissection the evolution of nervous systems across species the variability of brain features across healthy participants the insurgence of brain pathologies and there is no limit to artistic reflections in any form of art.

Participants can bring their own dataset, discuss a project, and recruit a team of collaborators on site. Access to free big online databases of MRI images will be also available during the three days, for new creative ideas to be tested.

This workshop integrates all levels of expertise and is also an opportunity to learn methods, develop skills, and collaborate with other participants.

## Final Program

### **Tuesday 12th November (4S Room) (+ DPSS1 available from 9am to 4pm + Student Hall at the Polo Didattico di Psicologia)**

09:00 – 09:30 Welcome to University of Padova & the concept of asymmetries (P. Bisiacchi)

09:30 – 10:00 Ignite: Frontoparietal Tracts Linked to Lateralized Hand Preference and Manual Specialization (E. Howells)

10:00 – 11:00 Project pitches

*P1 – establishing a quick assessment batterie of brain asymmetries (beginner level) - P Friedrich*

*P2 – tractography of the parietal lobe (medium level) - L. Petit*

*P3 – asymmetries in decision-making (medium level) - M. Thiebaut de Schotten*

*P4 – Cognitive differences related to handedness in twins (beginner level) – TBD*

*P5 – Influence of brain asymmetries on preprocessing and processing pipelines of MRI data (fMRI and DTI) in patients with stroke lesions - Expert level (Assia Jaillard)*

11:00 – 13:30 Teaming & Hacking

13:30 – 14:30 Brunch provided (student hall at the Polo Didattico di Psicologia)

14:30 – 18:00 Open Hacking

19:00 – ??? Social drinks & dinner

### **Wednesday 13th November (DPSS1 available from 3pm to 5pm + Student Hall at the Polo Didattico di Psicologia)**

09:30 – 18:00 Open Hacking

### **Thursday 14th November (4S Room) (+ DPSS1 available from 8:30 am to 6pm)**

09:00 – 09:30 Ignite: Animal lateralization (Marco Dadda)

09:30 – 10:00 Ignite: Brain variability and lateralisation in stroke (S. Forkel)

09:30 – 13:30 Open hacking

13:00 – 13:30 Projects updates Needing help? last call!

13:30 – 14:30 Brunch provided (student hall at the Polo Didattico di Psicologia)

14:30 – 18:00 Open hacking

### **Friday 15th November (4S Room) (+ DPSS1 available from 8:30 am to 6pm)**

09:00 – 09:30 Ignite: Atypical lateralisation of the human brain (D. Floris *TBC*)

09:30 – 10:00 Ignite: A functional lateralization model of the brain revealed by high-dimensional big data analyses (M. Thiebaut de Schotten)

10:00 – 13:30 Open hacking

13:00 – 13:30 Projects report/Wrap-up

13:30 – 14:30 Brunch provided (student hall at the Polo Didattico di Psicologia)

18:00 – ??? Farewell drinks