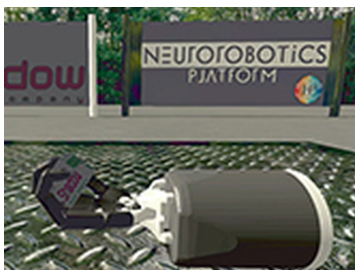




HBP Newsletter · June 2021

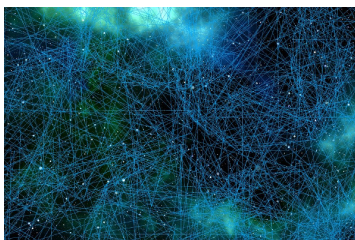
News

Stay up-to-date with the latest Human Brain Project - EBRAINS research and developments!



EBRAINS robot simulation one step closer to in-hand object manipulation

A team of scientists in the Human Brain Project is using the EBRAINS research infrastructure to learn more about how the brain coordinates complex hand movements. [Read more](#)



Thirteen new projects selected for implementation on the EBRAINS Infrastructure

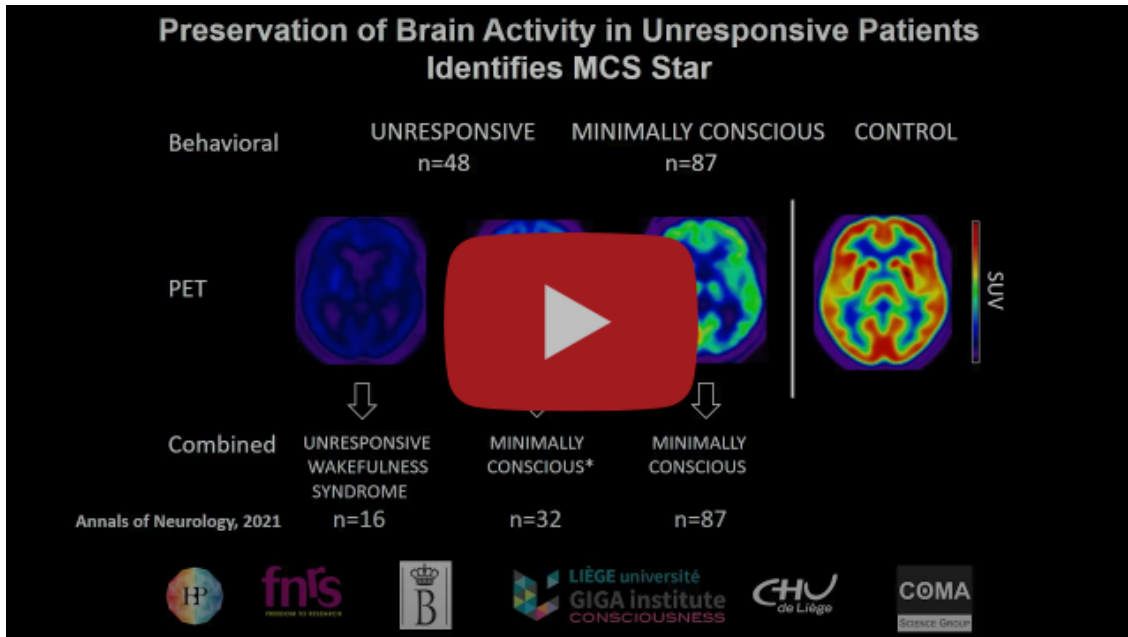
The vouchers fund the work of dedicated Human Brain Project teams for the development and implementation of new tailor-made EBRAINS features. These state of the art capabilities will allow the infrastructure to meet the needs of the scientific community.

[Read more](#)

Read more news items [here](#).

Publications

Introducing '60-second video abstracts!' Learn about recent HBP papers in a bite-size format:



60-second abstract: Preservation of Brain Activity in Unresponsive Patients Identifies MCS Star

Aurore Thibaut presents 'Preservation of Brain Activity in Unresponsive Patients Identifies MCS Star' in 60 seconds!

Read the full paper [here](#).

MANCHESTER 1824
The University of Manchester

Motivation

Can massively-parallel computing accelerate understanding of brain function?

Understanding cerebellar operation

Can our understanding of brain function point the way to more efficient parallel, fault-tolerant computation?

Robotics

QR Code

Video inset: A man with a beard and glasses, wearing a red shirt, is speaking.

Petruț Bogdan presents 'Towards a bio-inspired real-time neuromorphic cerebellum' in 60 seconds!

Read the full paper [here](#).

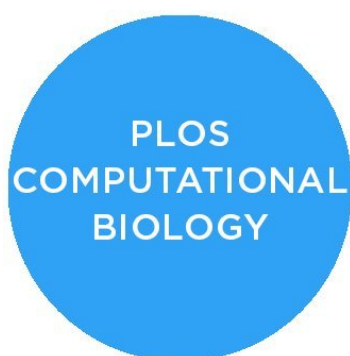
The Human Brain Project has published research papers in a number of high-profile journals over the last few months. Take a look at some of them below:



Modulation of intercolumnar synchronization by endogenous electric fields in cerebral cortex

The researchers analyzed spontaneously generated slow-wave activity in the cerebral cortex network in vitro, which allowed them to distinguish synaptic from nonsynaptic mechanisms of activity propagation and synchronization.

[Read more](#)



Extracting representations of cognition across neuroimaging studies improves brain decoding

The researchers introduce a new methodology to analyze brain responses across tasks without a joint model of the psychological processes.

[Read more](#)

Read more publications [here](#).

Upcoming Events

Learn about the Human Brain Project and EBRAINS through events, workshops, webinars, and more!

22 to 25 June 2021: 'PET Imaging of Brain Connectivity: Hype or future?' symposium at OHBM 2021 Annual Meeting

A symposium within the OHBM 2021 Annual Meeting, organized by Arianna Sala (ULiège) in collaboration with Igor Yakushev (TUM), brings together a panel of international speakers to initiate scientific discussion on the use of Positron Emission Tomography to study brain networks and connectivity.

[Register here](#)

15 to 24 September 2021: "EITN Fall School"

A 10-day intensive computational neuroscience training for students and post-doctoral researchers, taking place in Paris, France. Applications are now open for the 20 seats available.

[Apply now](#)

22 to 23 September 2021: 5th BigBrain Workshop (virtual format)

The workshop will be organized as a symposium, with both invited speakers and contributed talks as well as a poster and demo session. We welcome short abstracts of current work and/or short proposals for future initiatives related to the BigBrain. The topics to be considered will include:

[Methods and algorithms to analyze the BigBrain](#), especially (but not necessarily) concerning

- repair and preprocessing
- registration
- segmentation and mapping of cortical layers, areas, and subcortical structures

- visualization and annotation tools
- deep learning and machine learning approaches
- modelling and simulation

HPC aspects of managing, storing and processing big data (high resolution and/or very large volume)

Studies and teaching activities around the BigBrain

[Register here](#)

9 to 11 December 2021: The Future of Medical Data Sharing in Clinical Neurosciences - Save the date!

The HBP & EBRAINS in collaboration with the European Academy of Neurology (EAN), are happy to announce the upcoming **EBRAINS Workshop on 'The Future of Medical Data Sharing in Clinical Neurosciences'** from **9–11 DECEMBER 2021**. The programme will highlight important aspects and issues of medical data sharing, and offer participants the possibility to understand how to use the Medical Informatics Platform (MIP) for their own projects. Participants will learn about preliminary results of Federation Use Cases on the MIP, benefit from demonstrations, a hands-on session and four brainstorming sessions involving 20 EAN scientific panels.

[More information](#) and registration for virtual participation will follow shortly.

Learn about more upcoming events [here](#).

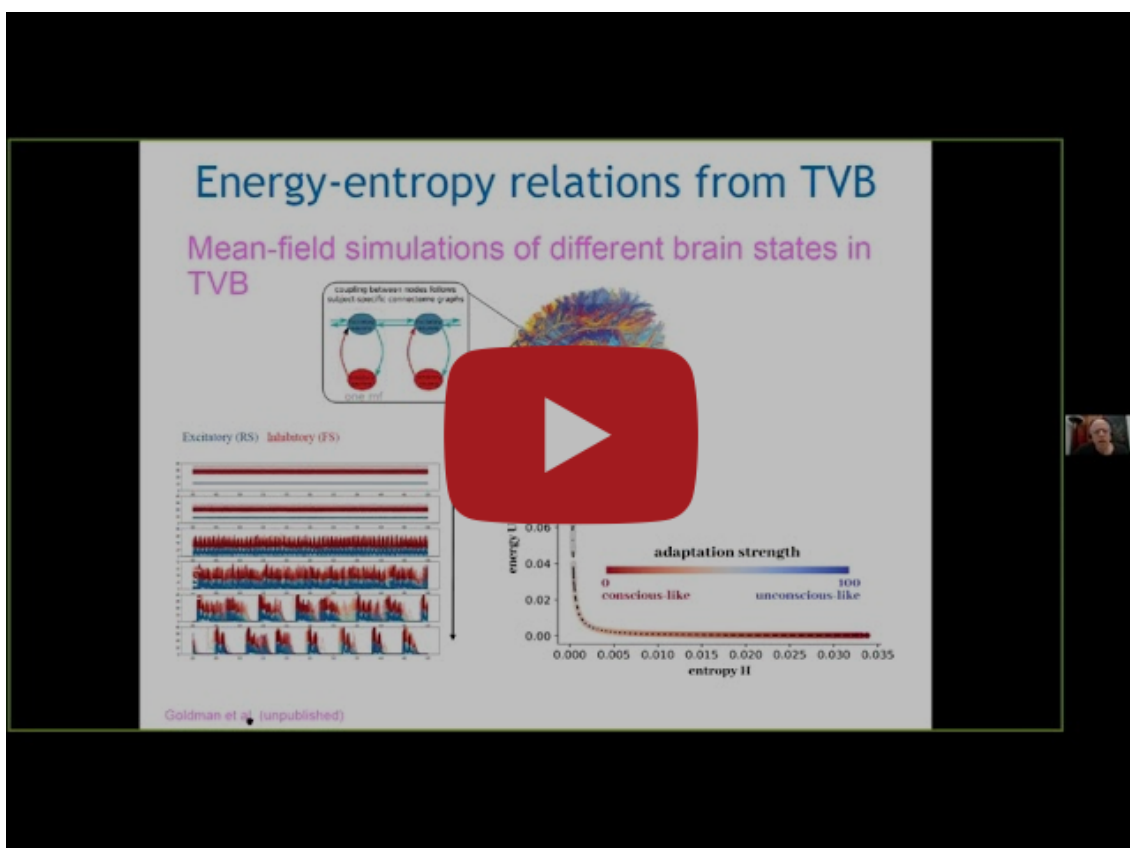
Event Recordings

Have you missed a recent HBP event? Don't worry, you can watch it on demand! Find a selection of recordings from some of our latest events below:



Everything You Always Wanted to Know About Data Sharing - EBRA Workshop

During this workshop data sharing issues in brain research including legal and ethical considerations in data governance, were discussed with representatives from EBRAINS and EBRA's clusters.

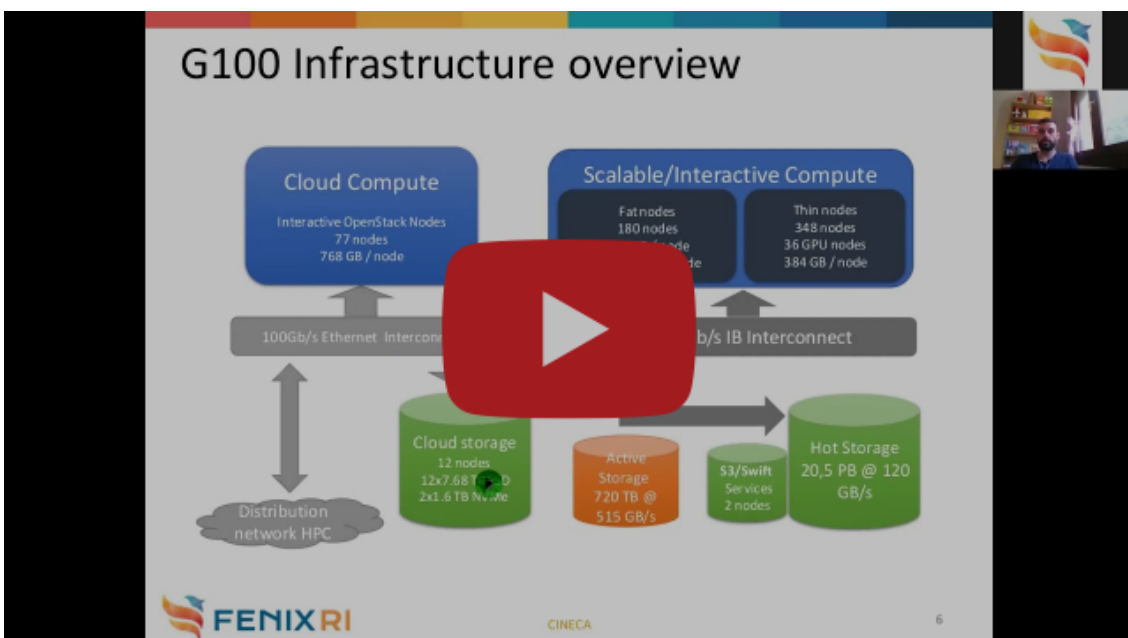


Watch a playlist of videos from the Energy and Entropy Measures in Neural Systems workshop, organized by the EITN as part of the Human Brain Project, which ran from May 5-6th 2021.



Tea & Slides XI

In the 11th HBP Tea & Slides session, Anna Lührs and Alper Yegenoglu from the Simlab Neuroscience, Jülich Supercomputing Centre, Forschungszentrum Jülich, talked about the process of writing proposals for High Performance Computing (HPC), Cloud and storage resources.



This webinar presents the ICEI resources that will be available at CINECA for users. Galileo100 (in short G100) is a tightly integrated system able to provide multiple computing and storage services: Scalable Computing services, via thin nodes based on Intel CPUs; Interactive Computing services, via fat nodes equipped with 1,5 TB of Intel persistent memory and NVIDIA V100 GPUs; Cloud services through an OpenStack instance installed on dedicated Intel nodes and served by a full flash storage; and finally Storage services via 20,5 PB of capacity available to users. This webinar provides an overview of the hardware and software setup of the G100 cluster and cloud partitions and describes introductory-level usage scenarios.

Social Media

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