Contribution ID: **3** Type: **not specified**

Using the multilevel human brain atlas in reproducible workflows with siibra-python

Wednesday 19 June 2024 13:00 (1h 30m)

siibra is a software tool suite that allows to access the multilevel human brain atlas by providing access to reference templates at different spatial scales, complementary brain parcellations maps, and multimodal regional data from different sources which is linked to brain anatomy at different spatial scales. Besides interactive exploration in the 3D web viewer siibra-explorer, the framework can be leveraged for scripting, reproducible workflows and application development using the siibra-python programming library.
This session will introduce the core concepts of siibra-python and demonstrate a range of typical programming patterns to use the atlas. It will cover practical coding exercises demonstrating how to fetch brain region maps, access high-resolution microscopy data including the BigBrain dataset, and extract multimodal regional features such as cortical thicknesses, cell and neurotransmitter densities, gene expressions, and connectivity data. Participants will gain first insight of the features of siibra-python to enhance their ability to perform advanced neuroimaging analyses with data coming from different modalities and resolutions.

Presenter: DICKSCHEID, Timo (Forschungszentrum Jülich)