



NeuGRID SERVICES&RESOURCES

NeuGRID portfolio of services is always expanded and improved.

NOW AVAILABLE

DATASETS

NUSDAST: *Northwestern University Schizophrenia Data and Software Tool.*

It offers high-resolution MR data from large cohorts of subjects using the same scanner platform and sequences. Moreover it combines neuroimaging data with demographic, clinical, neurocognitive and genotype information.

EDSD: *The European diffusion tensor imaging study in dementia.*

It includes 335 DTI and 335 structural MRI scans from patients with AD and healthy elderly subjects.

APPS

CLASP-CIVET: *Constrained Laplacian Anatomic Segmentation using Proximity algorithm.*

It is a fully automatic image processing pipeline focused on extraction of cortical thickness in the human brain from MRI data.

DARTEL: *Diffeomorphic Anatomic Registration Through Exponentiated Lie algebra*

It is a toolbox consisting of a high dimensional warping process that increases the registration between individuals, which results in improved localization and increased sensitivity in analyses.

...COMING SOON

ARWIBO: *Alzheimer's Repository Without Borders.*

It is a cross-sectional dataset including data from more than 2700 patients enrolled in Brescia and nearby areas. The database contains data of healthy elderly controls (CTR), individuals with Mild Cognitive Impairment (MCI), and patients with Alzheimer's disease: MRI structural data (T1 and T2-weighted images) and PET scans are available for this dataset.

VBM: *Voxel-based morphometry*

It is an image analysis technique to investigate the differences in brain anatomy the approach of statistical parametric mapping (SPM). NeuGRID will shortly expose the VBM pipeline allowing the registration of every brain to a template, smoothing the images and finally comparing the image volume across the brains at every voxel.

USER ACCEPTANCE TESTS

To guarantee the usability of its tools and to assess the capabilities of its online functional environment, neuGRID services are continuously put to the test by users from different European Institutions.

Latest User Acceptance Tests held in Munich, Stockholm, Warsaw and Bern proved that neuGRID can handle complex tasks in real world scenarios.

Next UAT will take place in Stockholm (April 2014) and in Amsterdam (May 2014).

NeuGRID OUT THERE

neuGRID attends international events to present its services and resources, to liaise with other initiatives and to meet potential users to collect their feedback and suggestions

The participation to **EPA**, the *European Psychiatric Association Congress* (Munich, 1-4 March 2014), where neuGRID was present with a booth, was a success. At the EPA, neuGRID had the opportunity to present its newest services, especially those of interest for the psychiatric community. In addition, useful comments were collected which will help improve the platform and user experience.



neuGRID4you attended **ICRI**, the *International Conference on Research Infrastructures* (Athens, 2-4 April 2014), which saw the participation of the main European research platforms. Beside allowing N4U to build effective synergies, ICRI has demonstrated the strength of the partnership between N4U and the Human Brain Project, one of the biggest EU-funded initiatives in neuroscience.

ISMRM (Milan, 10-16 May): the *International Society of Magnetic Resonance in Medicine Meeting*. At ISMRM neuGRID will meet with potential users, having the opportunity to show all its services and resources aimed at analysing all kind of images (MRI, PET).



OHBM (Hamburg, 8-12 June): the *Organization of the Human Brain Mapping Meeting*. Due to the success of the last year, neuGRID will attend this event in 2014 too. The HBM represents a good opportunity to show latest neuGRID services and resources to neuroimaging researchers.

NeuGRID at WORK

12 complete projects, among which 9 conducted by external users, have been successfully run on neuGRID. About 5533 scans were processed, 169.640 jobs submitted.

10 more projects, among which 7 conducted by external users, will start their analyses in the coming weeks.

