



CENTER FOR MIND/BRAIN SCIENCES



UNIVERSITÀ DEGLI STUDI
DI TRENTO

**Open Postdoctoral Positions:
High-field EEG-MRI, and fMRI developments for human cognitive neurosciences**

Functional Neuroimaging Laboratory,
Center for Mind/Brain Sciences (CIMEC),
University of Trento, Italy

The Center of Mind/Brain Sciences at the University of Trento, Italy (www.cimec.unitn.it) has a multi-modal functional neuroimaging laboratory for cognitive neurosciences research. The labs include 4T MRI, MR-compatible EEG (64 electrodes), MR-compatible Transcranial Magnetic Stimulation and Magneto Encephalography. We invite applications from highly qualified individuals to join the MR Group and work on developing multi-modal acquisition and analyses methods in the following areas:

- EEG-fMRI postdoc
With a focus on EEG, this person will contribute to optimize and develop simultaneous EEG-fMRI acquisition as well as analyses methods (artifact correction, source localization, coherence analyses, data modeling and integration with fMRI). Integration of EEG-fMRI with other modalities (e.g. TMS and MEG) is also of interest. The ideal candidate will have previous EEG-fMRI experience with BrainAmp systems and/or previous experience with EEG-fMRI data fusion methods.
- MRI methods postdoc
This person will help implement, develop and optimize image acquisition methods to merge reproducible information derived from multiple image contrasts. Areas of interest include structural MRI (maximize spatial resolution and tissue contrast to noise ratio, fast multi-spectral protocols for full-brain automated segmentation), functional MRI (real time fMRI, high-resolution 2D and 3D acquisitions, simultaneous multi-slice acquisitions, non-BOLD methods) and diffusion MRI. The ideal candidate will have MRI pulse sequence programming experience for Siemens systems.

Our international ongoing research collaborations include institutions in the USA, across Europe, Japan, India and China. Successful candidates will be part of an international multidisciplinary team using multi-modal neuroimaging to map human brain activity associated with normal higher cognitive function (e.g., language, attention, concept representations) and activation patterns associated with cognitive dysfunction in various neurological and neuropsychiatric conditions (e.g., characterization of language recovery mechanisms during rehabilitation). The Center for Mind Brain sciences is located in the city of Rovereto, at the Dolomite Mountains in northern Italy (~3 train hours from Milan, Venice or Austria).

We seek candidates with a doctoral degree in physics / electrical engineering / computer sciences or related area, strong scientific publication record, strong medical imaging and/or cognitive neuroscience training, strong drive and ability to work independently. Programming experience with Matlab will be an advantage.

Interested candidates please send a statement of research interests and an updated CV to:

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