**Tools for fMRI informed EEG source analysis.**

Simultaneous fMRI-EEG measurement offers new insight into brain function, but still it poses many technological challenges, especially when it comes to removal of EEG artifacts induced by fMRI. The talk will be based on current research taking place in Leibniz Institute for Neurobiology (LIN), Magdeburg, Germany in the scope of interdisciplinary “EmoAdapt” project, which aims to identify neural correlates of emotions.

At the seminar the speaker first will give an overview the technical and content related challenges of the project which requires collecting/analyzing large variety of physiological signals (fMRI, EEG, EKG, GSR, Pulse) while presenting a stimuli embedded in Virtual Reality environment. Later part will introduce a novel correction method - Carbon Wire Loops (CWL) - of reducing fMRI induced artifacts in EEG signal. At the end the speaker will show the tools used at LIN for fMRI informed EEG source analysis (BrainAnalyzer, BrainVoyager, BESA).

EmoAdapt: Brain-driven adaptive virtual reality for integrating emotions into human-machine interactions, BMBF 16SV7290

http://www.emoadapt.ovgu.de/emoadapt/en/