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Sommario The overall objective of the PhD project has been to establish a methodology for the definition and analysis of neurophysiological indices that can provide a measure of changes in brain activity and organization that can be quantifiable (i.e. measurable in real world conditions), is reliable (sensitive, specific, and consistent over time), widely applicable and modifiable (amenable to improvement using existing approaches). The aim is to describe the specific properties of the general brain organization to be correlated with the outcome of the rehabilitation intervention, with possible prognostic/decision support value. The objective is to support the diagnosis of motor and cognitive disabilities, to provide a neurophysiological description of the changes in brain activity and organization that underlie functional recover and to allow the evaluation of the effects of rehabilitative treatments (conventional and innovative) in terms of brain reorganization (measures of neurophysiological outcome of a treatment). Major attention has been given to the analysis of EEG recorded during the resting state. EEG measures of resting brain function provide insights into basal differences in brain state, therefore useful to predict the capacity of an individual brain, transcending inter-individual heterogeneity, to undergo plasticity and thus respond to therapeutic intervention. To this purpose, the

research activity has focused on developing an approach for the extraction of neurophysiological indices from a non-invasive estimate of brain activity and connectivity based on electroencephalographic measurements.

Localizzazioni e accesso

http://memoria.depositolegale.it/*/http://hdl.handle.net/11573/1147129
