## NEUROPHYSICS OF ELECTRICAL BRAIN ACTIVITIES



## HEMISPHERE

Verbal expression F7

**Sensorimotor integratiton** 

**Cognitive processing** 

**Single-channel EEG analysis** 





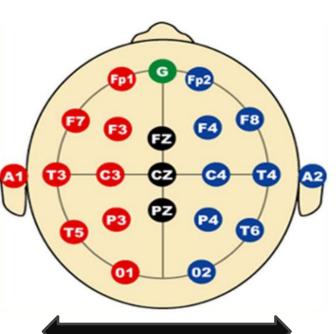
Motor planning F3

Verbal memory T3

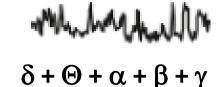
**Verbal understanding** 

Visual processing

midline



## **RIGHT HEMISPHERE**



**Fp2 Judgement** 

**F4** Motor planning

F8 Emotional expression

C4 Sensorimotor integratiton

**T4** Emotional memory

**T6** Emotional understanding

**P4** Cognitive processing

**O2** Visual processing



**Single-channel EEG analysis** 

**Cross-correlation between two-hemispheres** 

**Feature** extraction

**Experimental paradigm EEG** recording/processing (spectral-temporal-spatial) Classification Clustering

**Data Mining Neural-Networks Artificial Intelligence Machine Learning** (two-class, multi-class) **Decision** Maker

**Brain Mapping Diagnostic Biomarker Clinical Support Neurophysical Findings** 

