Matching Pursuit for P300-based Brain-Computer Interfaces



NEUROINFORMATICS Research Group

VA?EKA, L. Matching Pursuit for P300-based Brain-Computer Interfaces. In *TSP 2012*. neuveden: IEEE, 2012. s. 513-516. ISBN: 978-1-4673-1118-2

"Since the evoked responses obtained by stimulation are much weaker than the continuous electroencephalographic signal, the correct signal analysis enhances stimulation-driven signal components. The paper proposes methods for event-related potential processing for brain-computer interfaces based on matching pursuit. The suggested method is compared with another simple method which is frequently used for feature extraction. A multi-layer perceptron was used for classification. The results can be used to improve the feature extraction for BCI systems."

03.07.2012

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