عرض المقالة

Exploring the feasibility of tensor decomposition for analysis of fNIRS signals: a comparative study with grand averaging method

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الوصف   ear-infrared spectroscopy (fNIRS) signals has not kept pace RS in the behavioral and brain sciences. The popular grand he oxygenated hemoglobin data within a predefined time of ross multiple channels within a region of interest, potentially ant temporal and spatial information. On the other hand, the method can reveal patterns in the data without making prior odynamic response and without losing temporal and spatial aim of the current study was to examine whether the tensor d identify significant effects and novel patterns compared to d averaging method for fNIRS signal analysis. We used two d applied tensor decomposition (i.e., canonical polyadic and s) to analyze the significant differences in the hemodynamic oss conditions. The codes are publicly available on GitHub. erformed to understand interaction effects. The results from on method replicated the findings from the grand averaging ional patterns not detected by the grand averaging method. at tensor decomposition is a feasible alternative method for ering a more comprehensive understanding of the data and its underlying patterns.

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