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# Epileptic Seizure Prediction by Exploiting Signal Transitions Phenomena

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**Abstract :** A seizure prediction method is proposed by extracting global features using phase correlation between adjacent epochs for detecting relative changes and local features using fluctuation/deviation within an epoch for determining fine changes of different EEG signals. A classifier and a regularization technique are applied for the reduction of false alarms and improvement of the overall prediction accuracy. The experiments show that the proposed method outperforms the state-of-the-art methods and provides high prediction accuracy (i.e., 97.70%) with low false alarm using EEG signals in different brain locations from a benchmark data set.

**Keywords :** Epilepsy, seizure, phase correlation, fluctuation, deviation.
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