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# A COMPARISON OF ALGORITHMS FOR ENTROPY MEASURES IN ELECTROENCEPHALOGRAPHY

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## ABSTRACT

Quantifying the amount of uncertainty or randomness, thus a level of new signal pattern generation in biomedical data, becomes an effective way of unraveling hidden mechanisms responsible for their alterations. Analysis of nonstationary signals with a non-linear nature requires appropriate analytical tools to characterize dynamical brain states. In this study, we compare approximate, sample, permutation, or wavelet entropy measures to monitor pathophysiological changes of EEG that correlate with clinical observations and have the potential to serve as an effective diagnostic and prognostic tool.

**Keywords** Neuroscience · Approximate Entropy · Sample Entropy · Permutation Entropy · Wavelet Entropy

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