

## عنوان مقاله:

Comparison of Correlation Dimension and Fractal Dimension in Estimating Level of Consciousness

## محل انتشار:

پانزدهمین کنفرانس مهندسی پزشکی ایران (سال: 1387)

تعداد صفحات اصل مقاله: 6

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## خلاصه مقاله:

This paper compares the correlation dimension (D2), Higuchi fractal dimension (HFD), Katz fractal dimension (KFD) and Sevcik fractal dimension (SFD) approaches in estimating Depth of Anesthesia (DOA) based on of electroencephalogram (EEG). The single-channel EEG data was captured in both ICU and operating room and different anesthetic drugs, including propofol and isoflurane were used. For better analysis, application of adaptive segmentation on EEG signal for estimating DOA is evaluated and compared to fixed segmentation. Prediction probability (PK) is used as a measure of correlation between the predictors and BIS index to evaluate the proposed methods. The results show the ability of these algorithms in predicting DOA. Also, evolving fixed and adaptive ..windowing methods for segmentation of EEG reveals no meaningful difference in estimate DOA

## کلمات کلیدی:

Adaptive segmentation; Bispectral index; Correlation dimension; Depth of anesthesia; Fractal dimension

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/168595>

