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**Entropy-based measures of complexity in the assessment of  
heart rate variability: a clinical approach**

Non-linear dynamics is a powerful approach to understanding physiological data but non-linear methods usually require long data sets. In 1991, Pincus et al. introduced Approximate Entropy, a measure of complexity which can be applied to short and noisy time series of clinical data [1]. Subsequently, other entropy-based methods with some improvements were added and presently there are many examples of their successful application in medicine. An overview of the most promising applications in heart rate variability assessment will be presented. Advantages and limitations of these methods from the physician's point of view will be discussed based on recently published papers and our own results.

REFERENCES

- [1] S. Pincus, *Approximate entropy as a measure of system complexity* Proc Nati Acad Sci. USA **88** (6) 2297–2301.