A New Tool for Nonlinear Dynamical Analysis of Heart Rate Variability

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In this paper we analyse the sequences of the time intervals between heart-beats-the RR intervals- by means of AIP (artificial insymmetration patterns) diagrams.

The sequences were produced by artificial heartbeat sequences generated numerically and compared with sequences obtained from real heart activity.

We hope that the AIP diagrams method will prove useful for a rapid qualitative assessment of dynamics from nonlinear time series, and that it is able to distinguish various types of heart dynamics (regular and pathological), while other diagnostical methods fail.

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