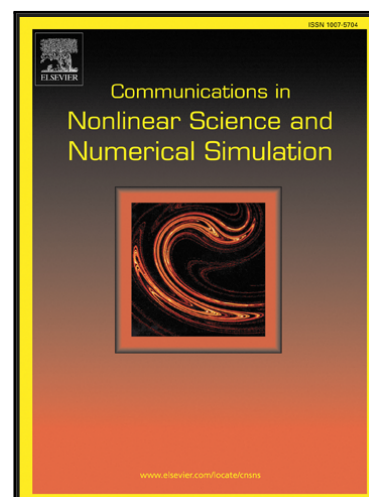


Accepted Manuscript

Mathematical model with autoregressive process for
electrocardiogram signals

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PII: S1007-5704(17)30372-6
DOI: [10.1016/j.cnsns.2017.10.018](https://doi.org/10.1016/j.cnsns.2017.10.018)
Reference: CNSNS 4356



To appear in: *Communications in Nonlinear Science and Numerical Simulation*

Received date: 1 March 2017
Revised date: 20 September 2017
Accepted date: 27 October 2017

Please cite this article as: Ronaldo M Evaristo, Antonio M Batista, Ricardo L Viana, Kelly C Iarosz, José D Szezech Jr, Moacir F de Godoy, Mathematical model with autoregressive process for electrocardiogram signals, *Communications in Nonlinear Science and Numerical Simulation* (2017), doi: [10.1016/j.cnsns.2017.10.018](https://doi.org/10.1016/j.cnsns.2017.10.018)

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Highlights

- We propose autoregressive process in a mathematical model based on coupled differential equations in order to model electrocardiogram signals.
- We compare our results with experimental tachogram by means of Poincare plot and detrended fluctuation analysis.
- Our results have showed that the model with autoregressive process exhibits good agreement with experimental measures from tachogram generated by electrical activity of the heartbeat.
- With the tachogram we build the electrocardiogram by means of coupled differential equations.

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