



Programa de Pós Graduação em Modelagem Computacional



Ciclo de Palestras

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("Anfiteatro Escadinha")

How to compare numerical heart models?

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Abstract:

A numerical heart model may be perfect from the viewpoint of mathematics or programming style, but how well does it reproduce reality and how well with respect to other modelling algorithms? This contribution will introduce a concept based on open access reference data sets, which provide input parameter data derived from imaging modalities, and biosignal data, which should enable a realistic model verification. A first step to this concept has been published in BioMedical Engineering OnLine 2011, 10:11 (27 January 2011): "A reference dataset for verifying numerical electrophysiological heart models" by H. Koch, R.D. Boussejot, O. Kosch, C. Jahnke, I. Paetsch, E. Fleck, and B. Schnackenburg. Benefits and shortcomings of this approach, and possible extensions and improvements will be discussed.