Abstract:
Computer models of breast anatomy have been used in preclinical validation of breast cancer imaging systems. In this presentation we discuss a novel algorithm for simulation of breast tissue based on recursive partitioning of a 3D volume.

We provide mathematical basis for mechanisms of thickness control, accounting for partial volume effect (when a voxel contains multiple materials) and for asymptotic computational complexity of the algorithm. We demonstrate experimental results on various features of the simulation method and experimental evidence on theoretical complexity bounds.

Predavač
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Dr. Dragoljub (David) Pokrajac is a full professor of Delaware State University and IEEE member. He graduated in 1993 at the Faculty of Electronics in Nis (Serbia) with GPA 9.97, and obtained MS in Telecommunications in 1997. He attended Washington State University and defended his PhD dissertation in spatial-temporal data mining at Temple University (Philadelphia, Pennsylvania, USA) in 2002. He is an author of numerous papers and book chapters and two patents. Part of this work has been performed during his sabbatical leave at University of Pennsylvania

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