



**BIOINFORMATICS 2017 Spring SEMINAR SERIES**

Hosted by: Department of Computer and Information Sciences,  
Department of Electrical and Computer Engineering &  
Center for Bioinformatics and Computational Biology  
<http://bioinformatics.udel.edu/Seminars/Current>

**MONDAY, February 6, 2017**  
**3:30pm**  
**DBI Room 102**

## **Multi-Scale Simulation of Breast Tissue**

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**ABSTRACT:**

Recursive partitioning has been a state-of-the art simulation technique for fast generation of software breast phantoms on radiological scale. This technique, based on geometrical modeling, provides for the structures such as breast skin, Cooper's ligaments, adipose and glandular tissue and calcifications. Recently, utilizing the inherent speed and versatility of recursive partitioning, we proposed multi-scale simulation of breast tissue. In this presentation, we consider simulation at the histological scale including adipose cells, fibroglandular tissue and acini. We demonstrate preliminary results and discuss the role of biomedical imaging and stereology in improving realism of simulated features.