



Biomedical Image Computing and Informatics Seminar

“Innovations in Imaging for Heart Valve Repair Surgery”

Alison Pouch, PhD

Research Associate

Penn Image Computing and Science Laboratory

University of Pennsylvania

Smilow Rubenstein Auditorium & Commons

3400 Civic Center Blvd.

Thursday, May 2, 2019 at 1pm

****Pizza lunch at 12:45pm****

Abstract

Advances in medical imaging have undoubtedly driven advances in cardiac surgery by providing new capabilities for visualization and quantitative analysis of patient-specific anatomy. A historic example is the emergence of heart valve repair surgery with transesophageal echocardiography. With further advanced imaging technology like real-time 3D echocardiography already in the operating room, we have an unprecedented opportunity to assess disease characteristics that cannot otherwise be appreciated preoperatively. This talk will focus on how advanced image analysis, interactive visualization, and informatics can play a key role in the standardization of new surgical treatments for adult congenital heart valve disease.

Bio

Alison Pouch, Ph.D., is a research associate in the Penn Image Computing and Science Laboratory and specializes in echo cardiographic image analysis for cardiac surgical guidance. She obtained her Ph.D. in bioengineering as a member of the Ultrasound Research Laboratory and was an inaugural trainee in the HHMI-NIBIB Interfaces Program in Biomedical Imaging and Informational Sciences. She then completed a three-year postdoctoral fellowship in collaboration with the Gorman Cardiovascular Research Group. Her research has focused on developing automated image segmentation and shape analysis methods for intraoperative assessment of heart valves. Dr. Pouch holds a certificate from the Institute of Biomedical Informatics and recently obtained a mentored K award to build a platform for outcomes data sharing and preoperative image guidance for bicuspid aortic valve surgery.