



Stony Brook University

Departments of Computer Science & Biomedical Informatics

present



Ron Kikinis, MD

Brigham and Women's Hospital, Harvard Medical School

Medical Image Computing (MIC): *We are living in interesting times*

Tuesday, December 6th, 2016

3:00 pm-4:00 pm

New Computer Science, Room 120

Summary:

The practice of medicine is undergoing an industrialization process and imaging is evolving at a rapid pace with new modalities and acquisition methods being added at an ever increasing pace. In parallel, results from basic research in the fields of genetics and immunology are beginning to translate into patient care. Driven by these disruptive changes, the importance of MIC is increasing rapidly. Image Informatics, Machine Learning, Radiomics and quantitative imaging are all contributing to the portfolio of tools and technologies being deployed to address the new challenges.

Bio:

Dr. Kikinis is the founding Director of the Surgical Planning Laboratory, Department of Radiology, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, and a Professor of Radiology at Harvard Medical School. This laboratory was founded in 1990. Before joining Brigham & Women's Hospital in 1988, he trained as a resident in radiology at the University Hospital in Zurich, and as a researcher in computer vision at the ETH in Zurich, Switzerland. He received his M.D. degree from the University of Zurich, Switzerland, in 1982. During the mid-80's, Dr. Kikinis developed a scientific interest in image processing algorithms and their use for extracting relevant information from medical imaging data. Since then, this topic has matured from a fairly exotic topic to a field of science. This is due to the explosive increase of both the quantity and complexity of imaging data. Dr. Kikinis has led and has participated in research in different areas of science. His activities include technological research (segmentation, registration, visualization, high performance computing), software system development, and biomedical research in a variety of biomedical specialties. The majority of his research is interdisciplinary in nature and is conducted by multidisciplinary teams. The results of his research have been reported in a variety of peer-reviewed journal articles. He is an author and co-author of over 300 peer-reviewed articles. As part of his service to the community, he serves as reviewer for a large number of journals and conferences from the fields of imaging, biomedical engineering and, computer science. He has served and is serving as member of external advisory boards for a variety of centers and research efforts. He is the Principal Investigator of 3D Slicer, a free open source software platform for image analysis and visualization.

Hosted by Drs. Allen Tannenbaum and Mary Saltz