Biomedical and Health Informatics Series
Tuesday, October 30, 2007, Room RR-134, 12:00-12:50

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"Imaging Informatics and its Application in the UW Structural Informatics Group"

Imaging informatics lies at the intersection of biomedical informatics and imaging science. As such it deals with the development of methods for representing, analyzing, managing, integrating and visualizing biomedical images. Subfields of imaging informatics include image generation, image manipulation, image management and image integration. In this talk I will define each of these subfields, give examples of the state-of-the-art in each subfield, and speculate on the future of the subfields and well as the field as a whole. In addition I will show examples of work in many of these subfields in the UW Structural Informatics Group (SIG). I will conclude that just as biomedical informatics has helped and will continue to help the field of medical imaging science, so too can imaging informatics provide a rich set of research problems for biomedical informatics.

Dr Brinkley has been involved in biomedical informatics for over 30 years. He received a BA in math from Amherst College, an MD from the University of Washington, and a PhD in medical computer engineering from Stanford University. His initial work was in 3-D reconstruction of anatomical objects from ultrasound using spatial knowledge of anatomy. These methods were then applied to 3-D protein structure determination from NMR. On returning to the UW he applied these methods to 3-D brain reconstruction from MRI, as part of the national Human Brain Project. He coined the term, "Structural informatics" in 1991, and together with Cornelius Rosse, co-founded the UW Structural Informatics Group, which he now directs. His current primary interest is in applying a structural information framework to the problems of data and computational model management, integration and visualization. He is a fellow of the American College of Medical Informatics, and has served on the editorial boards of the *Journal of the American Medical Informatics Association, the Journal of Biomedical Informatics,* and *Methods of Information in Medicine.* He has also served on several NIH and other advisory boards and study sections.

The Biomedical and Health Informatics lecture series covers current topics and developments in Biomedical and Health Informatics. Presenters include faculty, students, researchers and developers from the University of Washington, other academic institutions, government, and industry (locally and nationally). The intended audience is the broader University of Washington and Seattle area community with an interest in BHI as well as BHI faculty and students.

Series Website: http://courses.washington.edu/mebi590/