

Department of Computer Science  
University of Houston

**DISTINGUISHED LECTURER SEMINAR 2011**

**WHEN:** WENDESADAY, NOVEMBER 30, 2011  
**WHERE:** PGH 232  
**TIME:** 11:00 AM

**SPEAKER:** Dr. Andrew Webb  
Professor and Director, C.J.Gorter Centre for High Field MRI,  
Leiden University Medical Center, Leiden. The Netherlands.

Host: Dr. Nikolaos Tsekos

**TITLE:** Human MRI at 7Tesla and Above:  
Technical Challenges and Clinical Applications

**ABSTRACT:**

The major aim of the high field MRI group at the LUMC is to develop new hardware and imaging sequences for successful clinical MRI at 7T. Examples which will be presented include: (i) the use of navigator echoes and phase imaging for high resolution MRI in Alzheimer patients, (ii) coil development for improved coronary artery imaging, (iii) developing methodologies for studying the human vertebral column in patients with ankylosing spondylitis, and (iv) the use of high dielectric materials to improve imaging and spectroscopy at high field.

**BIOGRAPHY:**

Andrew Webb graduated from the University of Bristol with a bachelors in Chemistry and obtained his PhD from the University of Cambridge in Medicinal Chemistry. After a postdoc in the Department of Radiology at the University of Florida, he joined the faculty of the Department of Electrical and Computer Engineering at the University of Illinois Urbana-Champaign. He was appointed full professor in 2000, and worked for three years in the Department of Physics at the University of Wurzburg on a Humboldt Fellowship. After three years directing the MRI lab at Penn State University, he was appointed to run the newly-formed C.J. Gorter Centre at Leiden University Medical Center. His main research areas are RF design for high field MRI, and translation of new engineering concepts into the clinic.