武汉物数所理论交叉学术交流系列报告

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An introduction to tracer kinetics for dynamic contrast-enhanced imaging

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波谱楼 2楼会议室

About the speaker: Hou Zujun is currently with Institute for Infocomm Research (I2R), A-star, Singapore as Research Scientist III. He receives his B.S. from the Department of Physics in Beijing Normal University, China, in 1991, and the M.S. and the Ph.D. degrees from the Department of Physics and the Department of Computational Science in National University of Singapore, in 1999 and 2003, respectively. Between 1994 and 1996, he was studying aquatic ecology and bioremediation in the Department of Environment Science, Wuhan University. He has worked as a Research Associate with the Centre of Advanced Numerical Engineering Simulations, Nanyang Technological University from 2001 to to 2003. After that, he has been with the Biomedical Imaging Lab, Singapore Bioimaging Consortium as Associate Scientist and Research Scientist before joining I2R as a Senior Research Fellow in 2006. His research interest has evolved from ecology and bioremediation, chaotic system dynamics, to image processing and pattern recognition, with recent focus on medical imaging, computer vision and biometrics. He has been the member of Editorial Board of several SCI-indexed journals. He has been group leader and programme advisor in I2R. In 2012, he cofounded the ZWEEC Analytics Pte Ltd. Under his leadership, the company has deployed its product in China's number one water project, the Water Diversion from South to North Program, as well as Sino-China Tianjing Ecocity.

Abstract: Tracer kinetic methods employed for quantitative analysis of dynamic contrast-enhanced (DCE) magnetic resonance imaging (MRI) share common roots with earlier tracer studies involving arterial-venous sampling and other dynamic imaging modalities. In this presentation, the essential foundation concepts and principles in tracer kinetics that are relevant to DCE MRI or DCE computed tomography will be reviewed. Its application to clinics and pharmaceutical industry will also be discussed.

主办单位:武汉物数所理论与交叉研究部