

CIDSE Invited Talk



with Yonggang Shi

“Connectome Imaging for Mapping Fiber Pathways in Aging”



Friday, April 16, 2021

10:30am – 12:00pm

Zoom: <https://asu.zoom.us/j/6337683868>

Hosted by: Yalin Wang

Yonggang Shi

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<https://scholar.google.com/citations?user=sm2Y-6sAAAAJ&hl=en>

ABSTRACT:

With the fast advance of connectome imaging techniques, we have the opportunity of mapping the human brain pathways *in vivo* at unprecedented resolution. In this talk, I will review the novel computational tools for connectome imaging developed in my group at USC Stevens Neuroimaging and Informatics Institute. Novel algorithms for fiber orientation distribution and compartment modeling from multi-shell diffusion MRI will be first introduced. After that, a suite of topography preserving tractography tools will be presented with their applications in the reconstruction of challenging human brain pathways. Finally, I will discuss a few connectome imaging projects for vision and aging brain research.

BIOGRAPHY:

Dr. Yonggang Shi is an Associate Professor of Neurology, Electrical and Computer Engineering, and Biomedical Engineering at University of Southern California. He received his PhD in Electrical and Computer Engineering from Boston University in 2005. After that, he received Post-Doctoral training in neuroimaging at the Lab of Neuro Imaging (LONI) of UCLA from 2005-2009. He has been a faculty member of LONI since 2009. Currently, he leads the Neuro Image Computing Research (NICR)-Group at the USC Stevens Neuroimaging and Informatics Institute. His research focuses on the development of novel computational tools for medical imaging research. He is current the PI of six NIH funded projects and the project leader on shape analysis research in the LONIR P41 project.

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This talk will be recorded / Q&A following presentation