Yuxuan LIANG

Ph.D. Student, Rensselaer Polytechnic Institute, Troy 12180, USA

liangy15@rpi.edu ◇ (+1) 5183082508 ◇ https://liangyuxuan1.github.io/

EDUCATION

School of Physical Sciences, University of Science and Technology of China (USTC)	Sep 2018 – July 2022
Bachelor of Science in Physics, Photoelectric Information Science and Engineering	July 2022
Department of Biomedical Engineering, Rensselaer Polytechnic Institute (RPI)	Aug 2022 - present

RESEARCH INTEREST

Medical Physics, Medical Imaging

PUBLICATIONS

[1] **Yuxuan Liang**, Chuang Niu, Pingkun Yan and Ge Wang, Flipover outperforms dropout in deep learning, *Visual Computing for Industry, Biomedicine, and Art*, Vol. 7, Article no. 4, 2024

[2] **Yuxuan Liang**, Chuang Niu, Chen Wei, Shenghan Ren, Wenxiang Cong and Ge Wang, Phase function estimation from a diffuse optical image via deep learning, *Physics in Medicine and Biology*, Vol. 67, No. 7, 074001, 2022

Recent Projects

Fairness in medical imaging diagnosis	Sep 2022 – Mar 2024

- Propose an comprehensive evaluation method to judge the fairness of medical imaging diagnosis model.

Photon-counting X-ray and Optical Tomography for Preclinical Cancer Research	Sep 2024 - present

- The goal of this project is to develop a novel integrated imaging platform called the HOTGEM system (High-dimensional Optical Tomography Guided by Energy-resolved Micro-computed tomography). This multimodal imaging platform has the most potential to provide anatomical, functional and molecular information of diseased tissues in pre-clinical models. The HOTGEM system will be used to image tumors by utilizing X-ray and fluorescently labeled drugs injected into mice that have human breast cancer tumors.

Advisors

- Prof. Ge Wang, Fellow of IEEE, SPIE, OSA, AIMBE, AAPM, AAAS, and NAI.
  Clark & Crossan Endowed Chair Professor
  Director, Biomedical Imaging Center
  Department of Biomedical Engineering, Rensselaer Polytechnic Institute, USA
  Email: wangg6@rpi.edu
- Prof. Pingkun Yan
  P.K. Lashmet Career Development Chair Associate Professor
  Department of Biomedical Engineering, Rensselaer Polytechnic Institute, USA
  Email: yanp2@rpi.edu