季续

研究助理
美国威斯康辛麦迪逊大学医学物理系
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教育背景

- ħ博士，美国威斯康辛大学麦迪逊分校医学物理专业 . . . . . 08/2015 - 今
  导师：Guang-Hong Chen 教授
- 学士，南京大学匡亚明学院物理专业 . . . . . 09/2011 - 06/2015
  学分绩：94/100 (3.9/4.0)
  排名：1/80

研究方向

- 主要研究方向为x光影像系统及算法
- 详细研究方向为基于光子计数探测器的x光医学影像系统以及x光相称成像在医学领域的应用

工作经历

- 研究助理 . . . . . 08/2015 - 今
  美国威斯康辛大学麦迪逊分校医学物理系
  导师：Guang-Hong Chen 教授
- 教学助理 . . . . . 2017，2018及2019秋季学期
  课程: 放射物理与辐射剂量学
  主讲教师: Guang-Hong Chen 教授与Wesley Culberson 教授
- 访问学生, 美国杜克大学物理系 . . . . . 08/2014 - 12/2014

论文发表

- 期刊论文

1. **X. Ji**, R. Zhang, K. Li, and G.-H. Chen, "Dual energy differential phase contrast CT (DE-DPC-CT) imaging," IEEE Trans. Med. Imag. (2020).
2. **X. Ji**, R. Zhang, K. Li, and G.-H. Chen, "Is high sensitivity always desirable for a grating-based phase contrast imaging system?" Med. Phys. 47: 1215-1228, (2019).
3. **X. Ji**, R. Zhang, G.-H. Chen, and K. Li, "Task-driven optimization of the non-spectral mode of photon counting CT for intracranial hemorrhage assessment," Phys. Med. Biol. 64 215014 (2019).
4. E. Harvey, M. Feng, **X. Ji**, R. Zhang, Y. Li, G.-H. Chen, and K. Li, "Impacts of photon counting CT to maximum intensity projection (MIP) images of cerebral CT angiography: theoretical and experimental studies," Phys. Med. Biol. 64 185015 (2019).
5. **X. Ji**, M. Feng, R. Zhang, G.-H. Chen, and K. Li, "An experimental method to directly measure DQE(k) at k = 0 for 2D x-ray imaging systems," Phys. Med. Biol. 64 075013 (2019).

6. **X. Ji**, R. Zhang, G.-H. Chen, and K. Li, "Impact of anti-charge sharing on the zerofrequency detective quantum efficiency of CdTe-based photon counting detector system: cascaded systems analysis and experimental validation," Phys. Med. Biol. 63, 095003 (2018).
7. Y. Ge*, **X. Ji***, R. Zhang, K. Li, and G.-H. Chen, "K-edge energy-based calibration method for photon counting detectors," Phys. Med. Biol. 63, 015022 (2018) (*co-first author)
8. **X. Ji**, Y. Ge, R. Zhang, K. Li, and G.-H. Chen, "Studies of signal estimation bias in grating-based x-ray multicontrast imaging," Med. Phys. 44: 2453-2465, (2017).

- 会议论文

1. **X. Ji**, R. Zhang, K. Li, and G.-H. Chen, "Phase contrast CT enabled three-material decomposition in spectral CT imaging," Proc. SPIE 113121B & Oral presentation at SPIE Medical Imaging (2020).
2. M. Feng, **X. Ji**, R. Zhang, J. R. Miller, G.-H. Chen, K. Li, "Impact of photon counting detector spectral distortion on virtual non-contrast CT imaging," Proc. SPIE 113121J (2020).
3. **X. Ji**, R. Zhang, K. Li, and G.-H. Chen, "Impact of the sensitivity factor on the signal-to-noise ratio in grating-based phase contrast imaging," Proc. SPIE 10948 & Oral presentation at SPIE Medical Imaging (2019).
4. **X. Ji**, M. Feng, R. Zhang, G.-H. Chen, and K. Li, "An experimental method to correct drift-induced error in zero-frequency DQE measurement," Proc. SPIE 10948 & Oral presentation at SPIE Medical Imaging (2019).
5. M. Feng, **X. Ji**, K. Treb, R. Zhang, G.-H. Chen, K. Li, "Spectrum optimization in photon counting detector based iodine K-edge CT imaging," Proc. SPIE 10948 (2019).
6. E. Harvey, M. Feng, **X. Ji**, R. Zhang, G.-H. Chen, K. Li, "Impacts of photon counting detector to cerebral CT angiography maximum intensity projection (MIP) images," Proc. SPIE 10948 (2019).
7. **X. Ji**, R. Zhang, G.-H. Chen, and K. Li, "Task-driven optimization of an experimental photon counting detector CT system for intracranial hemorrhage detection," Proc. SPIE 10573 & Oral presentation at SPIE Medical Imaging (2018).
8. K. Li, R. Zhang, J. Garrett, Y. Ge, **X. Ji**, and G.-H. Chen, "Design, construction, and initial results of a prototype multi-contrast x-ray breast imaging system," Proc. SPIE 10573 (2018).
9. **X. Ji**, R. Zhang, Y. Ge, K. Li, and G.-H. Chen, "Signal and noise characteristics of a CdTe-based photon counting detector: cascaded systems analysis and experimental studies," Proc. SPIE 10132 & Oral presentation at SPIE Medical Imaging (2017).
10. **X. Ji**, Y. Ge, R. Zhang, K. Li, and G.-H. Chen, "Weighted singular value decomposition (wSVD) to improve the radiation dose efficiency of grating-based x-ray phase contrast imaging with a photon counting detector," Proc. SPIE 10132 & Poster presentation at SPIE Medical Imaging (2017).
11. **X. Ji**, Y. Ge, R. Zhang, K. Li, and G.-H. Chen, "Potential bias in signal estimation for grating-based x-ray multi-contrast imaging," Proc. SPIE 10132 & Oral presentation at SPIE Medical Imaging (2017).

- 会议摘要

1. **X. Ji**, M. Feng, R. Zhang, G.-H. Chen, and K. Li, "An experimental method to measure zero-Frequency DQE in the presence of system drift," Oral presentation at AAPM (2019).
2. **X. Ji**, M. Feng, R. Zhang, G.-H. Chen, and K. Li, "A practical model for the energy response function of photon counting detector systems with anti-charge sharing logic," Oral presentation at AAPM (2019).

3. **X. Ji**, R. Zhang, G.-H. Chen, and K. Li, "How does anti-charge sharing impact the zero-frequency DQE of photon counting detector systems? Theoretical framework and experimental validation," Oral presentation at AAPM (2018).
4. **X. Ji**, Y. Ge, R. Zhang, G.-H. Chen and K. Li, "Potential application of photon counting detector CT in intracranial hemorrhage detection," Oral presentation at RSNA (2017).
5. Y. Ge, R. Zhang, J. W. Garrett, **X. Ji**, J. P. Cruz-Bastida, G.-H. Chen and K. Li, "Initial experimental results from the first x-Ray dark field breast tomosynthesis prototype system," RSNA (2017).
6. **X. Ji**, Y. Ge, R. Zhang, K. Li and G.-H. Chen , "Is a high sensitivity interferometer always good for a grating-based differential phase contrast imaging system?" Oral presentation at XNPIG (2017).
7. Y. Ge, **X. Ji**, R. Zhang, K. Li, and G.-H. Chen, "Energy calibration of photon counting detectors based on measurement of x-ray attenuation curve of K-edge materials," AAPM (2017).
8. Y. Ge, **X. Ji**, R. Zhang, K. Li, and G.-H. Chen, "Radiation dose reduction in x-ray differential phase contrast breast imaging using an energy-resolved grating interferometer," RSNA (2016).
9. **X. Ji**, Y. Ge, R. Zhang, K. Li, and G.-H. Chen, "Low dose performance of a CdTe single photon counting detector and its application in radiation dose reduction for x-ray differential phase contrast imaging," Oral presentation at RSNA (2016).

受邀报告

1. "Statistical properties of grating-based x-ray phase contrast imaging," 中科院深圳先进技术研究院 (2019).

主要奖项

- 国际光电工程学会医学影像会议 Robert F. Wagner 大会最佳学生论文奖第二名 (2020).
- 国际光电工程学会医学影像会议 物理分会学生最佳论文奖第一名 (2020).
- 北美放射学会 Trainee research prize (2017).
- 美国医学物理协会 Expanding horizons grant award (2016).
- 北美放射学会 Student travel award (2016).
- 中国国家奖学金 (2012).

学术服务

- 《Medical Physics》《Journal of Applied Clinical Medical Physics》《The International Journal of Cardiovascular Imaging》等期刊审稿人

会员

- 美国医学物理协会学生会员 . . . . . 2016 - 今

专业证书

- The American Board of Radiology - Medical Physics - Part 1