Mohan Li

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Education

University of Illinois — Urbana-Champaign, IL
Ph.D. student, Nuclear, Plasma and Radiological Engineering, May 2020 (expected)

University of Illinois — Urbana-Champaign, IL
MS, Nuclear, Plasma and Radiological Engineering, July 2018

Tsinghua University — Beijing, China
BE, Engineering Physics, July 2015

Experience

Research assistant, University of Illinois at Urbana-Champaign — Urbana, IL

Development of a head-and-neck cancer dedicated PET system
- Investigated system performance through Monte Carlo simulation in GATE
- Developing a high-resolution DOI detector module based on SiPM and segmented LYSO

Bandwidth improvement of a cross-strip CZT detector
- Investigated bandwidth of a cross-strip CZT detector with different readout electrode pattern

Calibration of a benchtop CT system
- Used a plastic rod with four lead beads to locate the source, shaft and CMOS camera

Undergraduate researcher, Tsinghua University — Beijing, China

Separation of scintillation and Cherenkov lights in linear alkyl benzene (LAB)
- Implemented trigger logic on a Flash ADC (CAEN VX1751) by FPGA programming
- Built the DAQ system based on Maximum Integrated Data Acquisition System (MIDAS)
- Designed a waveform-analysis algorithm and measured LAB time constants and light yield

Summer undergraduate researcher, DESY — Hamburg, Germany

Particle Hit Errors for a Pixel Detector
- Implemented particle hit error into the analysis framework of EUDET-type telescope

Honors and Awards

University of Illinois at Urbana-Champaign
- Cancer Scholars for Translational and Applied Research Graduate Fellowship — 2018
- Graduate College Conference Travel Award — 2017

Tsinghua University
- National Training Programs of Innovation and Entrepreneurship Award — 2015
- Academic Excellence Scholarship — 2012, 2013, 2014

Deutsches Elektronen Synchrotron (DESY)
- Best summer student in DESY ATLAS group (1/15) — 2014

Skills

- Programming: C++, Python, CUDA, TensorFlow, R, FPGA, Matlab, HTML/CSS
- Hardware: PMT, SiPM, CZT, scintillator, Flash ADC, CMOS camera, HPGe detector

Selected Publications (2 of 5, total citation 53)

- **Li, M.**, Guo, Z., Yeh, M., Wang, Z., & Chen, S. (2016). "Separation of scintillation and Cherenkov lights in linear alkyl benzene." *Nucl. Instr. Meth. A*, 830, 303-308.
- **Li, M.**, and Abbaszadeh, S. "Influence of channel configuration on bandwidth of cadmium zinc telluride detector with a cross-strip pattern." *Radiat. Phys. Chem.*.