

# ECE SEMINAR

## FEIHU XU

*Professor*

University of Science and Technology  
of China (USTC)

Wednesday, August 7, 2019 at 11:00 am

8 St. Mary's St., PHO 339

Faculty Host: Vivek Goyal

Refreshments will be available at 10:45am

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## SINGLE PHOTON COMPUTATIONAL IMAGING OVER LONG RANGES

### Abstract:

I will address how to perform high-resolution 3D imaging at a light level of one photon per pixel at a distance of up to 45 km in an urban environment, with a long-range-tailored computational algorithm and a high-efficiency confocal single-photon LiDAR system [Li et al., arXiv:1904.10341 (2019)]. The recent results of non-line-of-sight (NLoS) tracking and imaging over ranges up to 1.4 km will be also briefly presented.

### Biography:

Feihu Xu has been a Full Professor at University of Science and Technology of China (USTC) since 2017. Before joining USTC, he was a Postdoctoral Associate at Massachusetts Institute of Technology (MIT) and received his Ph.D from the University of Toronto. He works on single-photon imaging and quantum information. As the first or corresponding author, he has published more than 30 journal papers in Nat. Photon.(3), Nat. Commun.(3), Phys. Rev. Lett.(4) and so forth. He is the recipient of Thousand Young Talents of China, Thousand Talents of Shanghai, Best Student Paper Award in QCrypt (2014, 2018) etc.

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