

IQSE AMO QO Seminar Series

**Tuesday, August 23rd, 11:30 am ZOOM & IQSE
seminar room (MPHY 578)**

Pizza will be served for IQSE members at 11:00 am. The talk will start around 11:30 am

Zhenhuan Yi

Institute for Quantum Science and Engineering, Texas A&M University

How Raman Techniques Can Make a Bigger Dent in Real-world Applications

This is an extended talk based on my talk at the 27th International Conference on Raman Spectroscopy (ICORS), Aug. 15-19, 2022. Raman scattering was discovered almost one hundred years ago, and Raman spectroscopy has been instrumental in extending our understanding of molecules. Many Raman techniques has been developed for a broad range of applications and it is clear that a new era of commercializing Raman technologies is happening right now. I'll review some of these new techniques, and also introduce FASTER CARS technique, which is promising to provide molecular-resolution imaging for biomolecules [1]. As another example, improved coherent Raman imaging techniques using non-classical light sources, while technically challenging, is likely to make a real impact in bioimaging.

[1] Volker Deckert, Zhenhuan Yi, Alexei V. Sokolov, Marlan O. Scully, "Plasmonic Tip Detects Viruses' Raman Signal", BioPhotonics, 28(5): 32-37, Sep/Oct 2021. Cover Story. [https://www.photonics.com/Articles/Plasmonic Tip Detects Viruses Raman Signal/a67256](https://www.photonics.com/Articles/Plasmonic_Tip_Detects_Viruses_Raman_Signal/a67256)

ZOOM information:

<https://tamu.zoom.us/j/98156251523?pwd=QVdSdGxtL1UyY0g1L083SU5QR0QrUT09>

Meeting ID: 981 5625 1523

Passcode: 297578

One tap mobile

+13462487799,,98156251523# US (Houston)

+16694449171,,98156251523# US

**INSTITUTE FOR QUANTUM SCIENCE & ENGINEERING
TEXAS A&M UNIVERSITY**