

## Invitation to IQ<sup>ST</sup> Seminar

on Tuesday, August 2<sup>nd</sup>, 2022 at 3.30 pm  
Universität Ulm  
ZQB  
Multimedia Room 2202

**Prof. Philip Hemmer**  
Texas A&M Univ / IQSE

## Opportunities for biosensing with fluorescent diamond and phosphor nanoparticles

**Abstract:** Fluorescent nanoparticles can probe biological processes on the nanoscale, sometimes with the potential for quantum-enhanced sensing. I will give a brief overview of the field with emphasis on opportunities for hybrid integration of diamond and upconversion phosphor particles. In particular, I will discuss some experimental examples of using both types of particles as biological probes. I will also discuss opportunities to improve the sensitivity and enhance functionality.