

Abstract Submitted
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Biological Quantum Nanoimaging. DMITRI VORONINE, Texas AM University and Baylor University, MARLAN SCULLY, Texas AM University and Baylor University and Princeton University — Recent progress in nanoscale bioimaging has led to a better understanding of biological systems and processes. Development of new microscopic tools for faster imaging with better spatial resolution can help developing new medical treatments and more efficient devices. We investigate quantum limits to optical signal enhancement in biological systems and develop improved imaging techniques. Raman spectroscopy signals are enhanced by plasmonic nanostructures and reveal nanoscale chemical signatures of biomolecules.

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