



# SPECIAL OSE SEMINAR

## PROF. VLADISLAV V. YAKOVLEV

of the Department of Biomedical Engineering,  
Texas A&M University



Thursday, December 2, 2016 at P&A, Room 190 from 1:00 PM to 2:00 PM

## Seeing life in a new light

### Abstract:

The progress of biomedical sciences depends on the availability of advanced instrumentation and imaging tools capable of attaining the state of biological systems in vivo without using exogenous markers. Mechanical forces and local elasticity play a central role in understanding physical interactions in all living systems. We demonstrate a novel way to image microscopic viscoelastic properties of biological systems using Brillouin microspectroscopy. In my talk, I will discuss the ways how an old spectroscopic tool can be used for real time microscopic imaging and provide possible solutions to long standing problems in Life Sciences and Medicine.

### Biography:

Dr. Vladislav V. Yakovlev is professor in the Department of Biomedical Engineering at Texas A&M University and Fellow of the Optical Society of America, the American Institute of Medical and Biological Engineering and the International Society for Optics and Photonics.

His research focuses on the development of new instrumentation for biomedical diagnostics and imaging. Dr. Yakovlev's primary research interests include biomechanics on a microscale level; nanoscopic optical imaging of molecular and cellular structures; protein spectroscopy and structural dynamics; bioanalytical applications of optical technology and spectroscopy; and deep-tissue imaging and sensing.

**Sponsors: CHTM, ECE, Physics & Astronomy, IEEE Photonics Society, SPIE and OSA Student Chapters**

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