Physics Colloquium

Prof. Gregory Harms

"Biophysics and Bioengineering of BMPs: from Molecule to Organism"

The Bone Morphogenetic Protein (BMP) and its receptor signaling system plays a fundamental role in development, cancer and mechano-biological events in cellular biology. Here, we describe our work through microscopy and bioengineered biosensors of BMP signaling to demonstrate quantification of the signaling and how this work has spread into several new technical areas such as light sheet, single-molecule and superresolution microscopy and in medicine towards drug discovery and cancer diagnostics.

Gregory S. Harms is an Associate Professor of Biology, Physics and Bioengineering at Wilkes University. He promoted in Biophysical Chemistry at the University of Kansas in 1998 and was both prior and following this on a Fulbright Fellowship at the Swiss Federal Institute of Technology (ETH) in Zurich. After Postdoctoral Fellowships in Linz (Austria), Leiden (The Netherlands) and Pacific Northwest National Laboratory (USA), he was an Associate Professor of Biophysics and Microscopy at the University of Würzburg (Germany).

Thursday April 8th at 4:25 via Zoom

If you are outside the Lehigh Physics Department, please email Professor Bitan Roy (bir218@lehigh.edu)