

Thursday, March 30<sup>th</sup>, 2023

Refreshments at 3:15pm in PSF 186

Colloquium from 3:30 PM – 4:30 PM in PSF 101

## Online “Advanced Labs” in Physics

Professor Peter Bennett

Arizona State University



### Abstract:

We have developed the first and only fully online BS degree in Physics in the country. A key component of the curriculum is the Advanced Labs, which include a suite of Nobel-Prize-winning experiments such as Interferometry, Zeeman effect, Quantum Entanglement, etc. I will review the structure of these lab courses, and show examples of the custom-built Simulator, overview Videos, student Worksheets, Lab Notebook and formal Reports.

### Advanced Labs: Some Assembly Required



### Biography:

Peter Bennett is a Professor in the Physics department at ASU, where he served as chair for 7 years. His research lies in the area of structure and kinetics of metals on semiconductors in ultrahigh vacuum using a variety of techniques including Scanning Tunneling Microscopy, Surface X-Ray Diffraction and Low Energy Electron Microscopy. He has taught the Advanced Lab courses for physics majors for many years and developed most of the experiments currently used there. In recent years, he has created online versions of these experiments, clearing the path for the full online degree.

Host: Prof. Cindy Keeler

View our Spring 2023 Physics Colloquium schedule at <https://physics.asu.edu/colloquia>