

## **Dr. Michael R Gallis**

**Associate Professor Tenure-Line  
Physics**

**Title of your research project.**

Interactive Visuals for Physics

**Description of research. Please provide a few sentences that explain the question and the methods employed in this research project.**

This project focuses on creating interactive visualizations (simulations) to enhance student learning in introductory physics courses. Simulations with significant visual information in the form of animations and dynamic graphs are used to help students explore concepts related to lecture and lab. The simulations are created with Easy Java Script Simulations (a free authoring tool) and 20 of the simulations have been accepted for the Open Source Physics project.

<https://www.compadre.org/osp/search/search.cfm?q=gallis&C=OSP>

**Did this project include Penn State students as researchers?**

Yes

**If yes to the above question, please state where it was published.**

N/A

**What problem do you address with your research?**

These projects all address challenges to student learning in introductory Physics, Astronomy, and Math courses and strive to enhance the student learning experience.