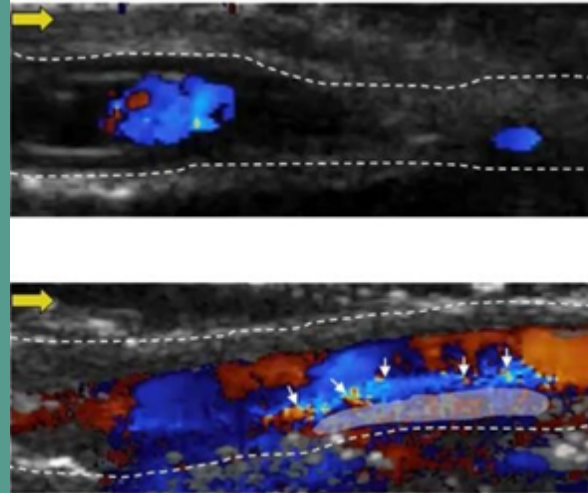


IMPROVING SIGNALS IN ULTRASOUND USING CONTRAST AGENTS

February 3, 2024
9 AM - 3:30 PM

118 Chambers Building
University Park, PA 16802

**Target Audience: Secondary physics, engineering, and
technology teachers**



OBJECTIVES

Ultrasound technology is frequently used in medicine as an imaging tool to research conditions of the human body, diagnose disease, and to monitor certain conditions. Researchers at Penn State in the Precision Therapeutics and Bioresponsive Materials Lab led by Dr. Scott Medina are working to further develop ultrasound methodologies that can be rapidly translated into the clinic to improve human health. One project in Dr. Medina's lab is working to improve ultrasound imaging with the use of contrast agents. Participants of this free in-person workshop will make their own contrast agent, examine their contrast agent under the microscope, measure the size of particles using ImageJ, and measure the signal of the agent using ultrasound. With support from Dr. Medina, graduate students, and CSATS, teachers will leave the workshop able to use these activities to help students learn about ultrasound signaling.



STEELE STANDARDS ADDRESSED

3.2.9-12.U. Evaluate questions about the advantages of using digital transmission and storage of information.

3.2.9-12.X. Communicate technical information about how some technological devices use the principles of wave behavior and wave interactions with matter to transmit and capture information and energy.

Apply Now! >

PARTICIPANT BENEFITS

- Free one-day professional development
- Workshop aligned to NGSS and Pennsylvania STEELS Standards
- Act 48 credit is available upon request
- Lunch provided by Penn State Center for Science and the Schools



CONTACT:

Amber Cesare, STEM Education
Specialist at ams5306@psu.edu