

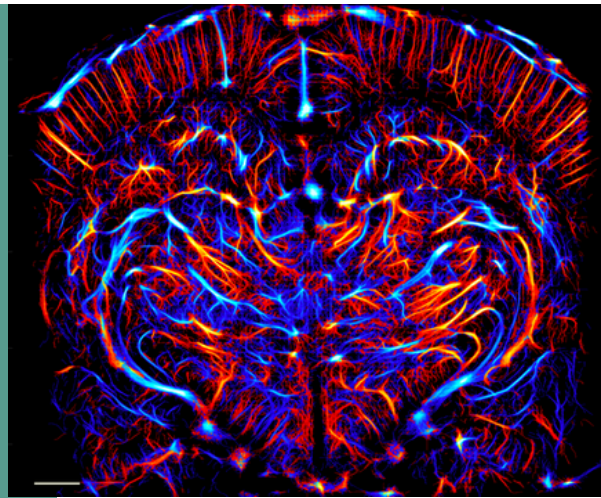
# Sound Waves of Discovery:

## BRINGING BIOMEDICAL ULTRASOUND INTO YOUR CLASSROOM

July 8 - 10, 2024  
9 AM - 3:30 PM

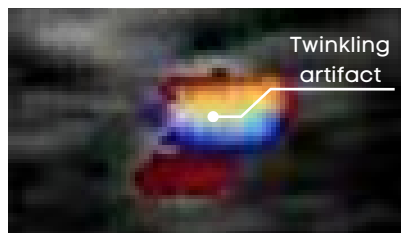
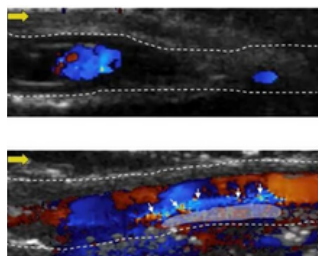
118 Chambers,  
University Park, PA 16802

**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, Dr. Juli Simon, Dr. Scott Medina, and Dr. Raj Kothapalli, are working to further develop ultrasound methodologies that can be rapidly translated into the clinic to improve human health. Participants of this in-person workshop will learn how ultrasound is being used as a diagnostic tool for diseases caused by mineral build up in the body like kidney stones, gout, and cardiovascular disease; how to improve ultrasound imaging in the body with the use of contrast agents; and how ultrasound devices are fabricated. With support from Dr. Simon, Dr. Medina, Dr. Kothapalli, Biomedical engineering graduate students, and CSATS, teachers will leave the workshop with knowledge and activities to bring biomedical ultrasound into their classroom.



## PA STEELS STANDARDS ADDRESSED

3.5.9-12.E Evaluate how technology and engineering advancements alter human health and capabilities.

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.

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## PARTICIPANT BENEFITS

- Three-day professional development
- \$600 stipend for educators
- Workshop aligned to NGSS and Pennsylvania STEELE Standards
- Act 48 credit is available upon request
- For a limited number of traveling participants, lodging, meals, and mileage reimbursement.



## CONTACT:

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