

Post-doctoral research position in ultrasonic sensing

We are seeking a highly motivated postdoctoral researcher to develop novel wearable ultrasonic sensors in the Daraio Research Group at Caltech. Our group is part of the Mechanical Engineering and Applied Physics Department in the Division of Engineering and Applied Sciences at Caltech.

The selected candidate will work closely with our industry collaborators at Meta Reality Labs. Applicants should have deep expertise and substantial research experience in ultrasound.

Required qualifications include strong knowledge of:

- Ultrasound physics and wave propagation in heterogeneous solids
- Imaging with ultrasound transducer arrays
- Multi-channel ultrasound systems (e.g., Verasonics)
- Beamforming and sequence optimization
- Signal and image processing
- Strain imaging / elastography

Preferred experience includes:

- Flow / Doppler imaging
- Ultrafast imaging
- 2D array imaging
- SVD-based methods
- Digital Image Correlation (DIC)

Programming skills: MATLAB, Python, or C (hardware/embedded).

Applicants must hold a Ph.D. in engineering, applied physics, or a related field. Strong interpersonal skills, the ability to work effectively in an interdisciplinary team (including industrial collaborators, researchers, and students), and the ability to publish and present work in leading journals and international conferences are expected.

Review of applications will begin immediately and will continue until the position(s) are filled. To apply, please email susta@caltech.edu with the subject line: "Postdoctoral position application_Name" and attach the following materials (preferably as a single PDF): CV (including a publication list), Statement of research interests (\leq 250 words), Names and contact information for at least one referee.

For more information, please contact Carolina Oseguera, susta@caltech.edu