DEPARTMENT OF BIOMEDICAL ENGINEERING  
COLLEGE OF ENGINEERING AND APPLIED SCIENCE  
SUMMER RESEARCH OPPORTUNITIES FOR UNDERGRADUATE students  
APPLICATION DEADLINE: 02/25/2022

PROJECT TITLE: Ultrasound imaging for therapy guidance

T. Douglas Mast  
Department of Biomedical Engineering,  
College of Engineering and Applied Science  
3938 Cardiovascular Research Center  
231 Albert Sabin Way  
Cincinnati, OH 45267-0586  
doug.mast@uc.edu  
Phone: (513) 558-5609

Project Description

The Biomedical Acoustics Laboratory does research on ultrasound imaging for guiding therapy, which includes cancer treatment by heating and radiation, correction of irregular heart rhythms, speech therapy, and rehabilitation of swallowing disorders. Potential projects involve analysis of ultrasound signal and image data, performing imaging and therapy experiments, and programming in MATLAB, in collaboration with a team of faculty, postdoctoral trainees, and graduate and undergraduate students.