The Facility for Isotope Research and Student Training (FIRST) at Stony Brook has labs for sample preparation, and a quadrupole (Agilent 7500cx) and multi-collector ICPMS (Nu Instruments Plasma II) that can be coupled to a New Wave 213UV laser ablation system. We specialize in dating carbonates and fluorite. Training to do laser ablation analyses takes a few days where samples will be run throughout the training until the visitor and lab personnel think are confident, they can be independent. Samples must be slabbed and polished for laser ablation analyses and the student should reach out to lab personnel for details, but this should be easily accomplished before visiting the lab. We charge $350.00 per sample for laser ablation analyses. We specialize in using the image-based mapping approach that was introduced by Drost et al., (2018). This produces element and ratio maps. Even samples with low U/Pb have elemental concentrations and patterns that reveal a lot about their formation. For samples with favorable U/Pb ratios, other elements can help to objectively select pixels for pooling to obtain the greatest range in the $^{238}U/^{206}Pb$. A typical run takes 3 hours including running standards and samples. We use the commercially available software Iolite4 for data reduction and will train students how to use this program and plot their data in IsoplotR. Researchers typically visit the lab for a week, which is enough time for training and sample analysis. The lab manager, Katie Wooton, will train the students and oversee all projects and Professor Troy Rasbury will also be involved in hosting and training students. Typically, we arrange for students to come within a few weeks with the obvious caveat that instruments break down. Please contact katie.wooton@stonybrook.edu and troy.rasbury@stonybrook.edu for additional information.

We welcome students from all backgrounds to use our lab. We are particularly eager to host students from groups that are under-represented in our field. There is a Hilton Garden Inn on the Stony Brook Campus which is an easy walk to the Earth and Space Sciences building which houses the FIRST labs. For those within driving distance, we can obtain parking permits for the duration of the visit.