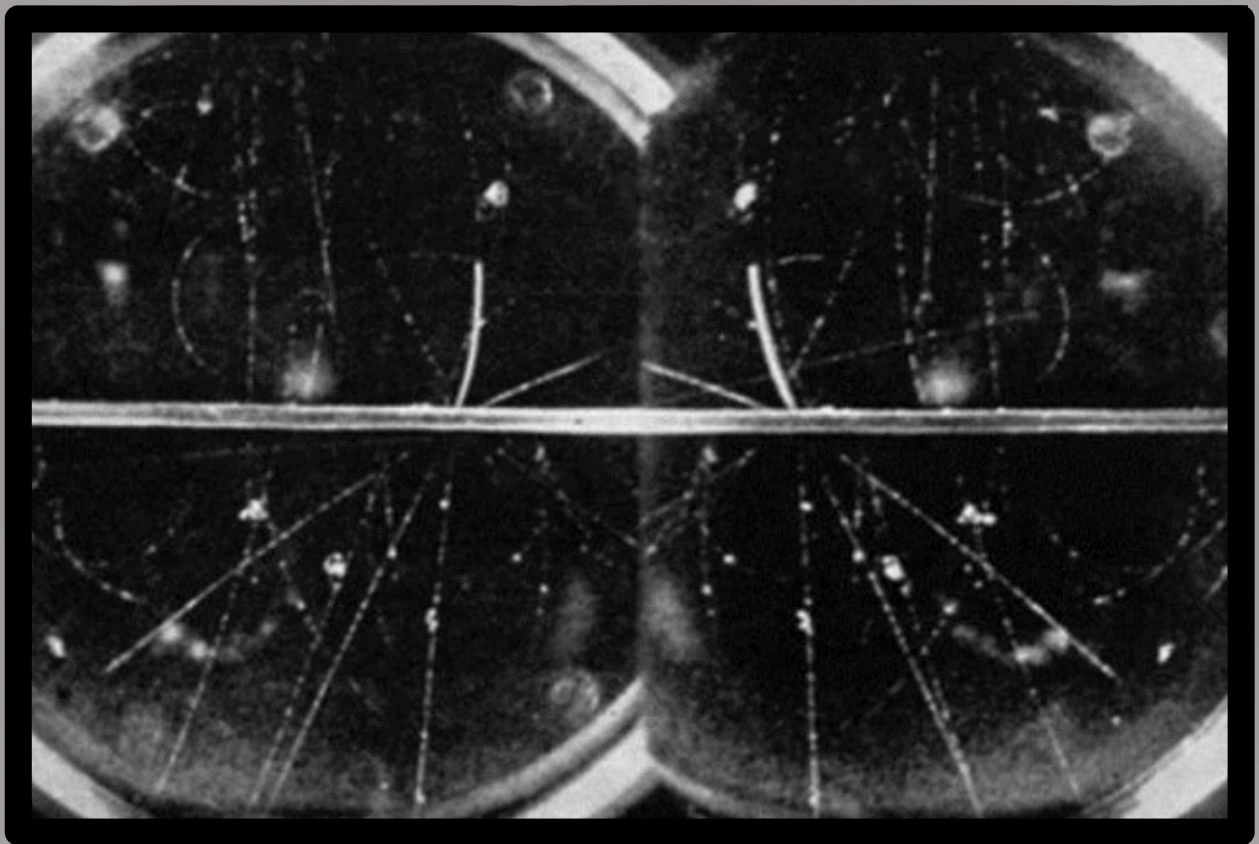


Daniel Snowden-Ifft

Professor Snowden-Ifft is an experimental particle physicist. He has worked for many years to try to detect halo WIMP dark matter. He then spent several years working on an accelerator-based search for light dark matter. Professor Snowden-Ifft is now involved in several muon tomography projects. All of these projects involve building detectors, analyzing data, and simulating the physics to understand what is being seen.



By the start of summer 2025, the team hopes to take delivery of 10 large scintillator-based particle detectors. These will be distributed over the upper (solar) parking lot to create an array to detect cosmic ray air showers.

Over the summer, they hope to be able to measure air showers and correlate them with a detector underground. If successful, the research will demonstrate a vast expansion of the capabilities of a sub-field of muon tomography called borehole muon tomography.

As with all of Professor Snowden-Ifft's projects, work over the summer may include hardware, analysis, or simulation work, depending on what the student is interested in.

If you are interested in participating in this research, please contact Professor Snowden-Ifft by email at iff@oxy.edu