Report for the "slow-to-fast earthquake" workshop

I participated in the "slow-to-fast earthquake" workshop, and gave a presentation on our recent work on source parameter inversion using Distributed Acoustic Sensing (DAS) array and comparison with seismic measurements. During the workshop, I had the opportunity to learn more about subduction zone science, and visited many posters on a variety of topics, such as numerical modeling, field geology, laboratory experiments, and earthquake observations.

After the workshop, I joined Dr. Taka Uchide at the AIST in Tsukuba, and gave a presentation on source parameter inversion from Parkfield and induced earthquakes in Oklahoma. Following the presentation, I had discussions with researchers from the research group at GSJ. I learned about a wide range of topics, including the detailed faulting history of the field sites, strain measurements using DAS in Japan, scaling relationship of slow earthquakes, laboratory friction measurements and geodetic measurements of stress. Following these discussions, Dr. Uchide and I decided to have monthly meetings to discuss journal articles on slow earthquake scaling and source parameter measurements of low frequency earthquakes. We had two virtual meetings after I returned to Texas, the most recent meeting included my former student (now at Lawrence Livermore National Lab) and a postdoc scholar from Dr. Uchide's research group. The intermediate goal of our monthly meeting is to identify knowledge gaps in slow earthquake source processes, and the longer-term goal is to better understand the physical processes governing slow and fast earthquakes.

Besides engaging research activities, I enjoyed the beautiful scenery of Japan. The deer in Nara were very friendly. After bad weather from the typhoon, I visited the \*Geodetic museum with Dr. Uchide. We walked along the Japan trench with 3D glasses and spent several hours exploring space geodesy. I also enjoyed walking in the beautiful gardens around AIST in Tsukuba, and Japanese food with colleagues and friends.



\*The Science Museum of Map and Survey (地図と測量の科学館)