

Introduction of Research in ERI

My project in ERI is mainly related to “Seismic anisotropy of 2016 Mw7.0 Kumamoto aftershocks revealed by shear-wave splitting”. Shear-wave splitting from local *S*-wave is an efficient tool to obtain the stress in crust, and Kumamoto Aftershock Array (KAA) provides a good opportunity to understand the spatial distribution of seismic anisotropy in/near the fault zone.

KAA has 250 stations with three components and sampling rate of 500 Hz. In the observation period (May.2~May.16, 2017), 626 events from JMA catalog are available. Phase picking is the essential step for further analysis of shear-wave splitting. In order to work efficiently, I applied automatic phase picking technique named as PSIRpicker to the large data set based on JMA catalog and 1-D velocity model in Kyushu. At present, the shear-wave splitting analysis is under processing by testing various filter parameters in MFAST technique, and more results would be available in the following days.

Except the research on Kumamoto aftershocks, I introduced my main research related to both seismic anisotropy and fault zone by taking part in two workshops during my staying in ERI. I gave a talk “Aftershock detection of 2013 Mw6.6 Lushan in Longmenshan Fault Zone, Eastern Tibet” in the Joint Workshop on Slow Earthquakes 2017, and showed a poster “Complex seismic anisotropy beneath western Tibet and its tectonic significances” in Workshop ERI-IPGP 2017 – Monitoring of active processes in seismic and volcanic zones. In addition, my study on Kumamoto was introduced on Oct.18 in the seminar of Seismology group in ERI.

In these days, I benefited a lot from discussing with researchers focusing on various topics. Thanks a lot for those who contributed to my staying in ERI.