

## New Science Project in Japan: Science of Slow-to-Fast Earthquakes

Satoshi Ide, Yohei Hamada, Asuka Yamaguchi, Yoshihiro Ito, Yoshiyuki Tanaka, Aitaro Kato, Takanori Matsuzawa

A new science project, Science of Slow-to-Fast Earthquake, has started in Japan, with researchers in various fields. In addition to seismologists, scientists with specific experience in slow earthquake investigation will be involved in this project, including studies of geodesy using GPS and other instruments, geology, and geochemistry to understand the materials in places where earthquakes occur, and basic physics to clarify the laws of friction and fracture. In addition, engineering researchers who are developing new observation techniques and researchers in information science and statistics with expertise in data science will also newly participate. To enable these researchers from various fields to collaborate effectively, six planned research subgroups have been established in the research area. These are the A01 Physicochemical Processes Group, A02 Structural Anatomy Group, A03 International Comparison Group, B01 New Technology Observation Group, B02 Information Science Group, and B03 Modeling and Forecast Group. Approximately 100 researchers, and many students who will lead the next generation of scientists, will work within this five-year-long research project to understand both slow and fast earthquakes and better forecast their future occurrence.

To promote collaborative research, we host various meetings, including the annual international workshop, which is “International Joint Workshop on Slow-to-Fast Earthquakes 2022”, in Nara, September 14-16, this year. The slow earthquake database (<http://www-solid.eps.s.u-tokyo.ac.jp/~sloweq/>; Kano et al., 2018, SRL), which was developed in the previous project, will be further improved in this project. We also run international exchange programs for students and researchers, and conduct outreach activities, such as publishing leaflets explaining fast and slow earthquakes for the public.

