

International joint workshop on Slow-to-fast earthquakes, 2023 Tokyo, Japan

I am Gaspard Farge, a postdoc researcher in the University of California Santa Cruz. I had the pleasure to participate in the workshop to present a poster on my research on the role of dynamic fluid circulation processes in shaping tremor spatio-temporal activity patterns, in the deep subduction fault in particular. I am grateful to have received a travel grant from the organizing committee that covered housing, transportation to and from the airport, and daily expenses during the workshop. This workshop was a unique opportunity for me to discuss slow earthquake science with scientists with a variety of expertise, and I think the organization really served this purpose.

The workshop lasted 5 days, starting with an early career event on the first day, scientific sessions on the next 3 days, and ending with a field trip on the last day.

The early career workshop was a very nice initiative, to have early career researcher present to students and other early career researchers. It was a good way to get to know a few of the other participants before the start of the workshop. The event was geared towards Japanese-speaking attendants, but although I am not Japanese-speaking, the talks were given with slides in English, which still allowed me to benefit from the very pedagogical presentations that were given, by Dr Arai and Dr Uno.

The scientific sessions lasted three days. They were organized around morning and afternoon oral sessions, and a poster break around lunch on the first two days. I believe the oral sessions were organized around different disciplines (experimental research, geologic studies, geodetic studies...), and I thought it produced very good interaction between talks: speakers reacting to previous presentations, links could easily be made between different studies. The keynote talks really gave a backbone to the sessions, and were great material for discussion for the next speakers, or during poster sessions and breakout discussion. The poster sessions were the perfect scale to have more than enough studies to have interesting discussions for the workshop, while still feeling that we were not missing too much. However, I think that having times for each presenter to be in front of their poster would facilitate interactions between attendees. Breakout sessions surprisingly truly benefited from the lack of structure, it allowed for free discussion around an array of subjects, and for diversion away from the suggested themes, into areas that seemed to matter to all attendees, eg how to better communicate about slow earthquakes, between expert communities, to non-expert scientific communities, to students, to the general public. This preoccupation is exactly at the backbone of the Slow-to-fast earthquake project, which attempts to build a community of scientist and understanding around the subject — I therefore think the workshop really served its purpose.

We spent the last day touring the Chiba peninsula looking at terraces from historic earthquakes in the Tokyo region. It was great to see direct evidence of uplift in bio markers, and quite impressive to see the amplitude of the vertical deformation, even that far from the rupture plane.



Marine terraces elevated from historical earthquakes, a maximum of about 1.5m of uplift for the 1923 for the great Kanto earthquake, as shown by remains of oysters far above the water line.