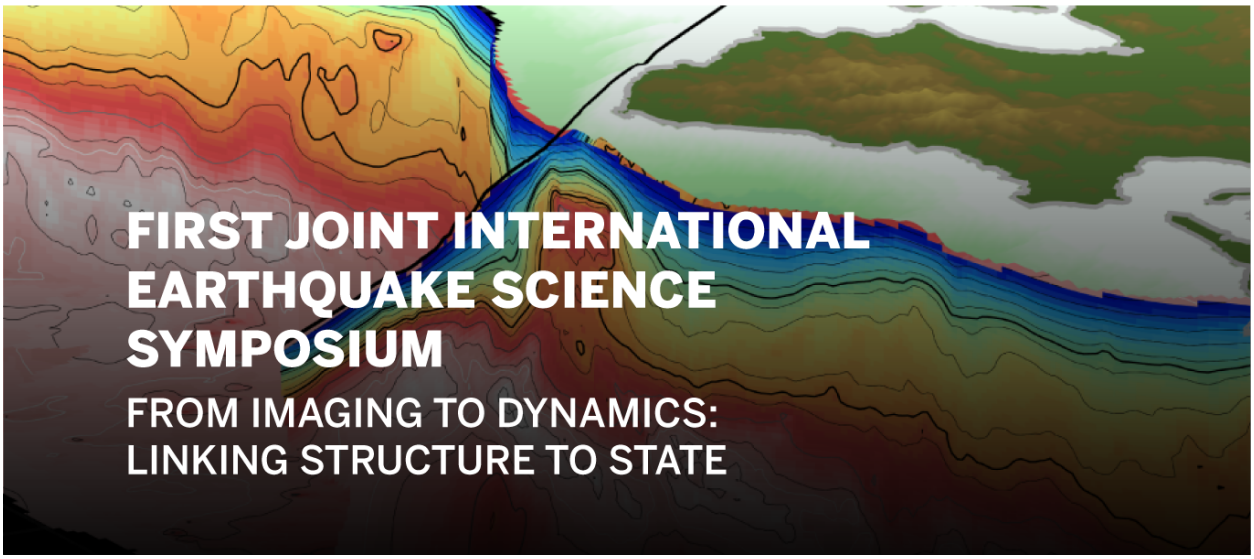

FEB 14-16, 2024, AUSTIN TX

We are excited to host the first of a series of focused international workshops, jointly organized by the University of Texas Institute for Geophysics (UTIG), JAMSTEC, and GEOMAR, aimed at deepening our collective understanding of earthquake mechanics, dynamics, and predictability. A primary goal is to bring together scientists across institutions to significantly advance the state of our science via: sharing knowledge and progress; identifying outstanding questions and needs; improving links between field, lab, and seismological observations as well as models; and cultivating new collaborations focused on the above. The intent is to convene annually, rotating between the US, Japan, and Germany, focusing each year on a set of subtopics of emerging interest and/or where clear progress can be made.

Day 0: February 14

6:00 PM	Icebreaker at Austin Beerworks

Day 1: February 15

8:30-9:00	Coffee/breakfast/registration
9:00-9:15	Welcome (Young; Becker & Saffer)

Oral Session 1: Imaging and Rock Physical Properties

9:15-10:30 Keynote talks (25 min each)

Shuichi Kodaira: Overview of ongoing & planned JAMSTEC projects

Shuoshuo Han: CASIE seismic experiment

Heidrun Kopp: Current and upcoming GEOMAR seafloor geodesy experiments

10:30-11:00 Discussion and lead-in to coffee break

11:00-12:00 Talks (15 min each + discussion)

Ryuta Arai: Ridge subduction and seismogenesis in the westernmost Nankai Trough

Andrew Gase: Mapping the Hikurangi megathrust's geology and rock properties with seismic imaging

Yasu Nakamura: Seismic reflection imaging of the Japan Trench

12:00-1:15 Lunch

Oral Session 2: Geodetic and Seismological Observations: Links to Structure and State

1:30-2:45 Keynote Talks (25 min each)

Yuya Machida: Chikyu Nankai Observatory and fiber sensing

Roland Burgmann: Probing subduction zone mechanics with geodesy

2:45-3:15 Discussion and coffee/snack break

3:15-4:45 Talks (15 min each + discussion)

Erik Fredrickson: Seafloor geodetic experiments

Marcos Moreno: Decadal and ongoing geodetic monitoring of mature seismic gaps in Chile

Satoru Baba: DAS data analyses using the Muroto cable in Nankai subduction zone

Laura Wallace: Linking structure to seismicity, geodetic observations, seismic attributes

Dietrich Lange: Seismicity of the Blanco transform fault system

4:45-6:30 Adjourn to posters and reception (UTIG Lobby)

Group Dinner - Plank Seafood Provisions

Day 2: February 16

Oral Session 3: Modeling: State of the Art and Key Needs from Lab and Imaging/Field

9:00-10:30 Keynote Talks (30 min each + discussion)

Takane Hori: Prototype model for forecasting fault slip behavior in subduction zones

Kelin Wang: What we learn from modeling vertical deformation throughout subduction earthquake cycles

10:30-11:00 Discussion and lead-in to coffee break

11:00-12:15 Talks (15 min each + discussion)

Roos Verwijs: Earthquake nucleation and arrest near a subducted seamount: Insights from numerical models

Hanaya Okuda: Sediment diagenesis, temperature and frictional properties

Daisuke Sato: Detecting frictionally locked asperities for physics-based earthquake forecasts

Simone Puel: Advancing earthquake understanding through physics-based forward and inverse modeling

12:15-1:30 Lunch

1:30-2:45 Poster session 2

2:45-3:10 Coffee break

3:10-4:30 Workshop in small groups - identify key needs, potential projects, collaborative proposals/ideas

4:30-5:30 Plenary discussion

5:30 Adjourn for happy hour and light refreshments in UTIG Lobby

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