



SCEC NORCAT TAG

NORthern California

Cascadia-San Andreas Transition

Organizers:



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2026 SCEC NORCAT Workshop

New TAG; kick-off workshop held Sunday

Coordinate community research on the northern California transition between Cascadia, the San Andreas fault system, and the Mendocino Triple Junction

Open community TAG; join us!



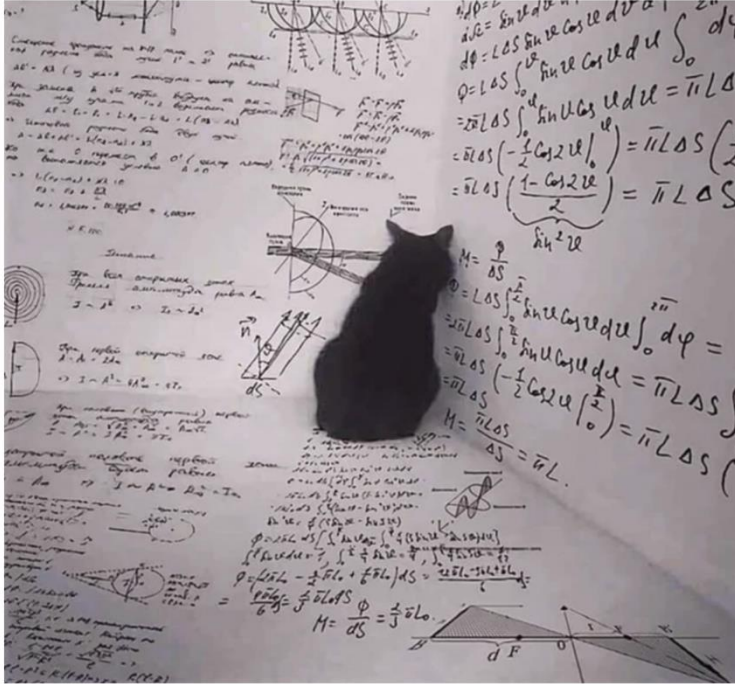
2026 SCEC NORCAT Workshop



47 participants from geology, seismology, geodesy, geodynamics, paleoseismology, agencies, and more
funding & logistics: SCEC; additional travel funding from CRESCENT

Why Norcat? Purpose and brief workshop recap

Schrödinger's cat



indeterminate state

dead and alive

Norcat

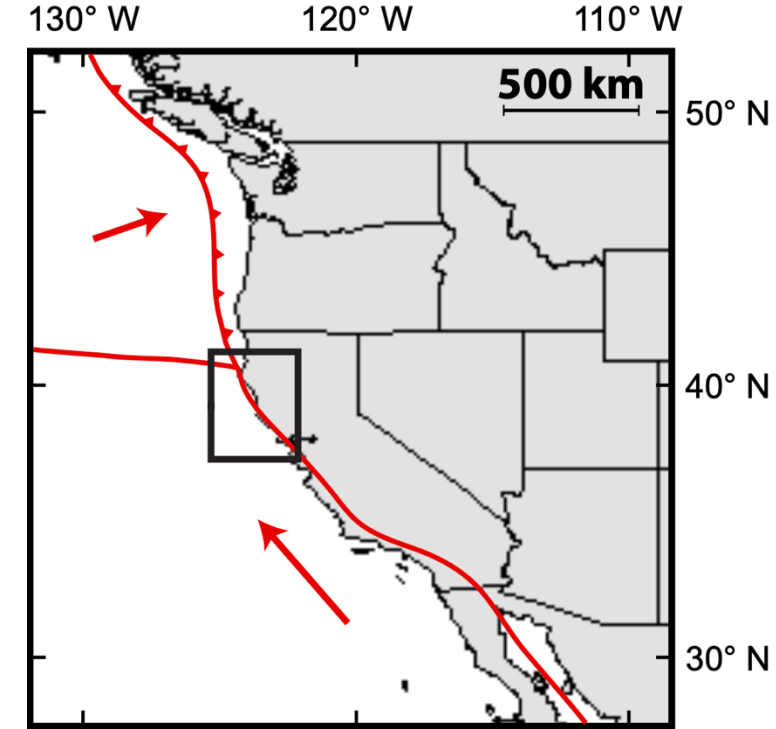


the transition region exists

is important for seismic hazard

is complicated

modified from Beeson et al., 2017



Cascadia and SAF system: Interactions?

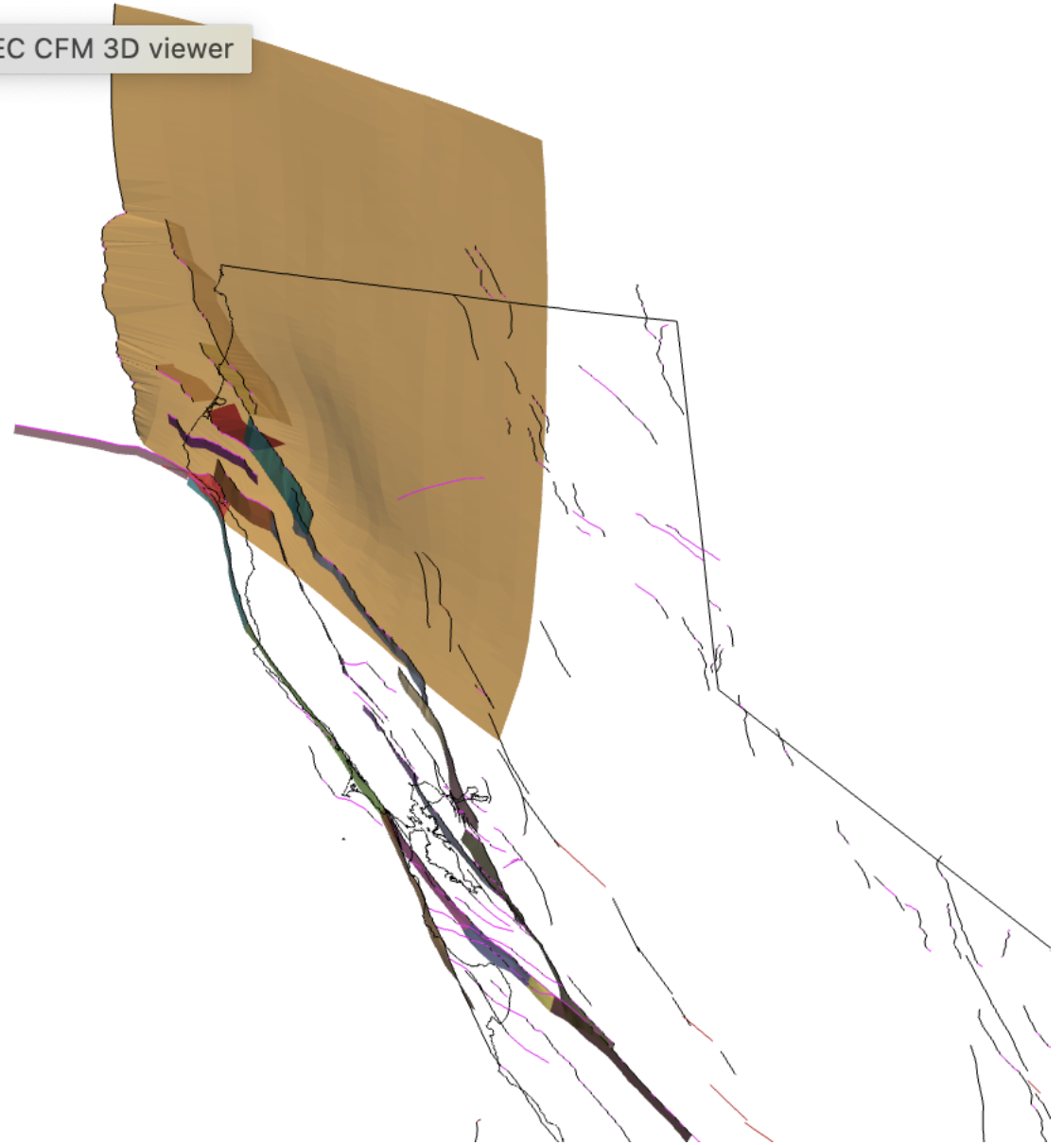
Hey

What

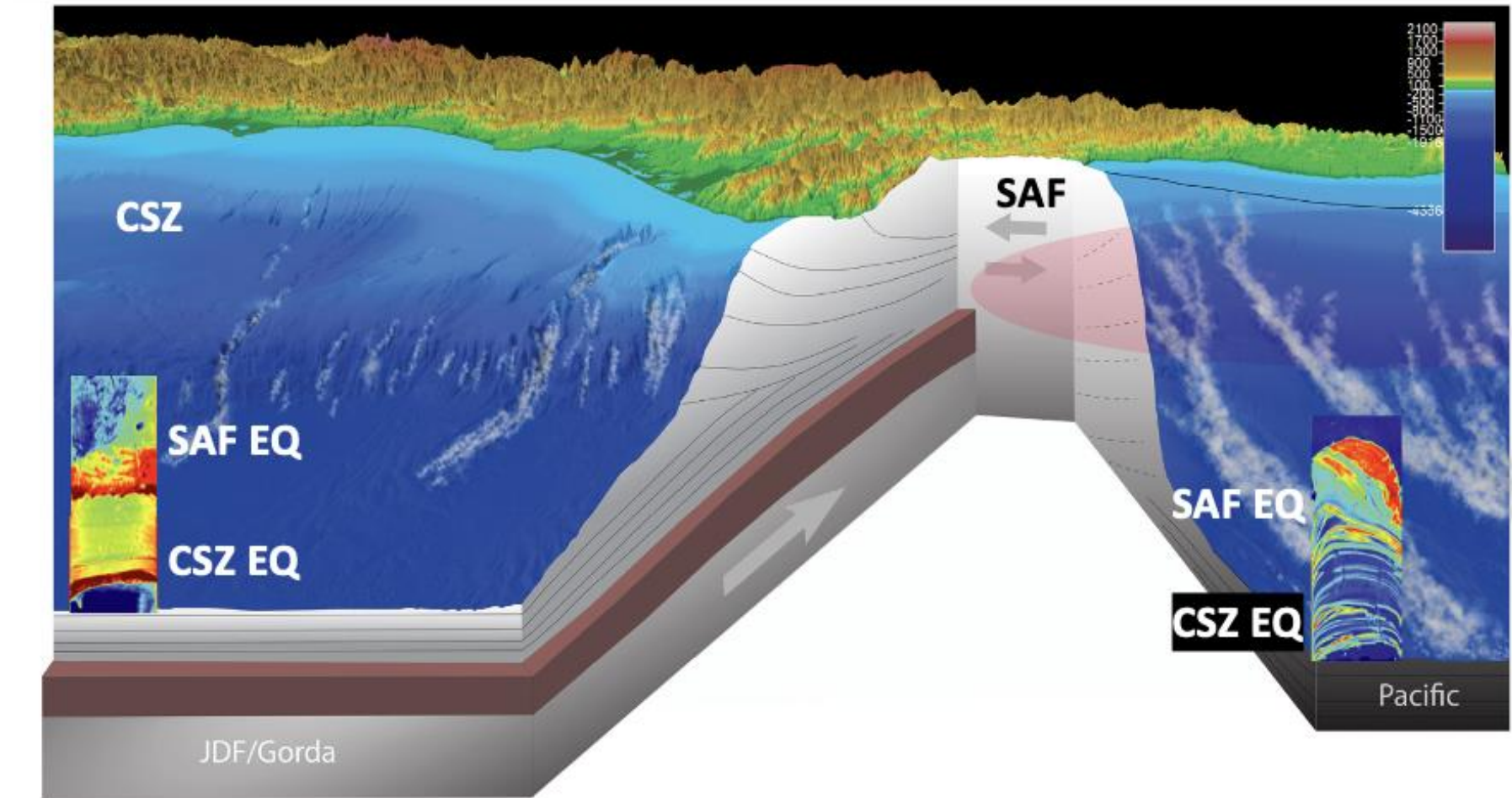
I gotta go

Me too

SCEC CFM 3D viewer



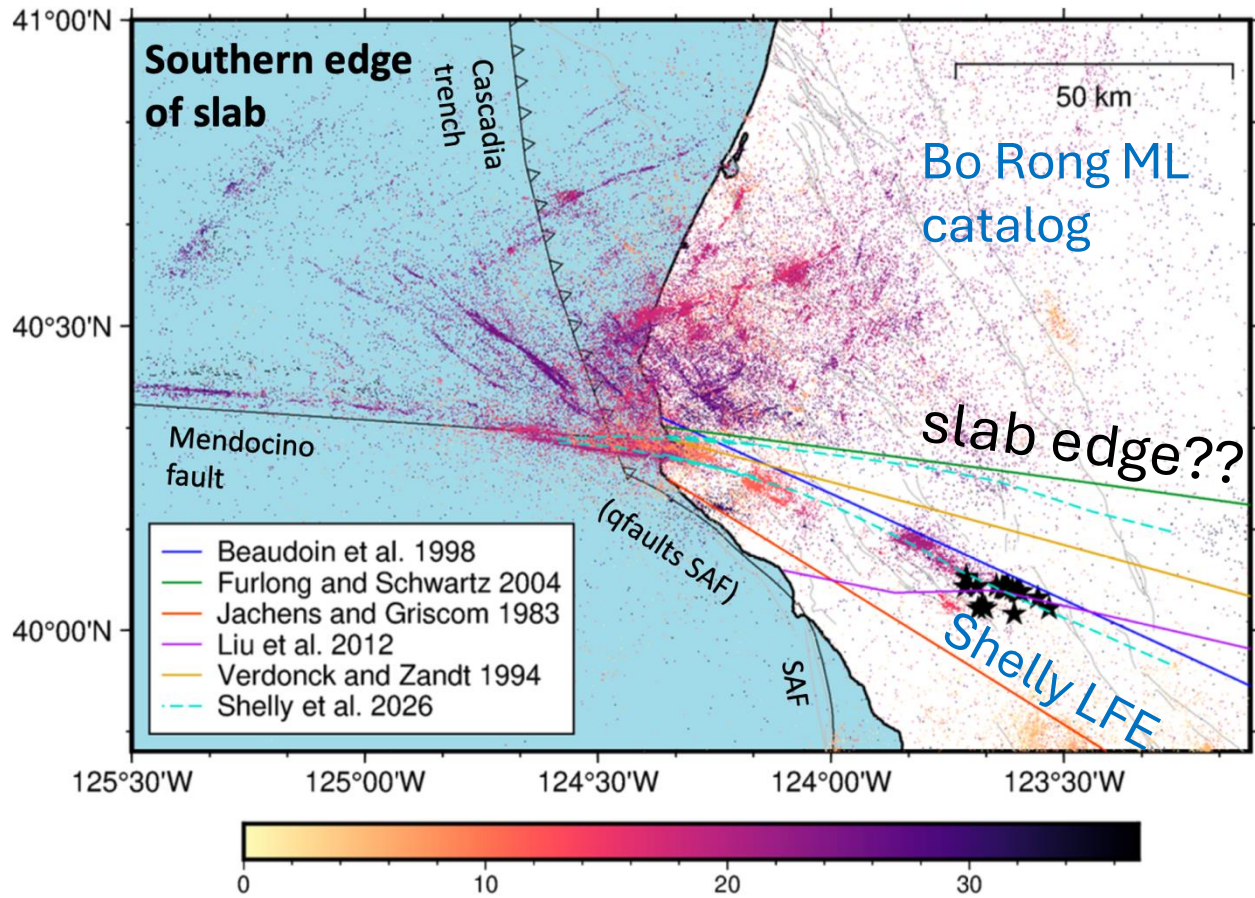
Partial synchronization of subduction – SAF EQs proposed



modified from Goldfinger et al., 2025

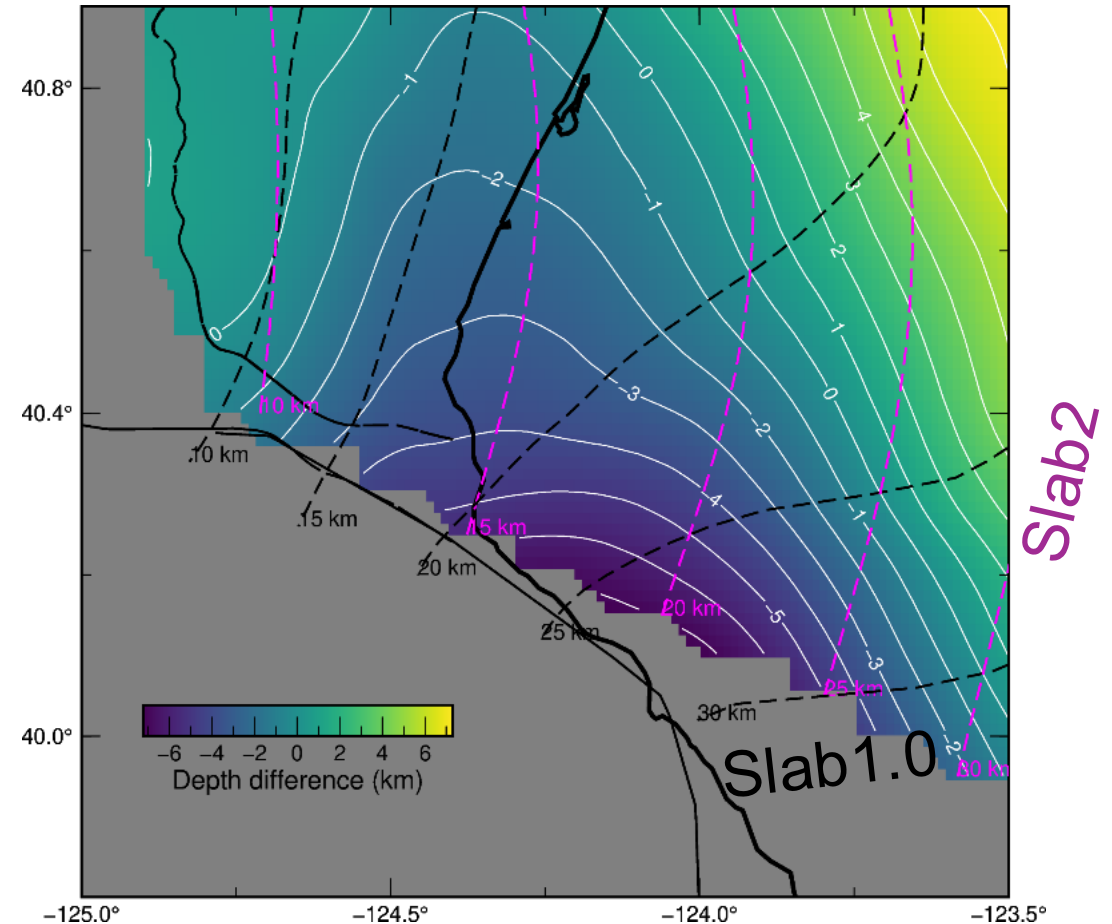
Quantify interactions: Requires good idea of transition region structure
... we don't have it now – but we have lots of **new observations**

Where is the southern edge of the slab?



Depth (km) Figure: Kathryn Materna

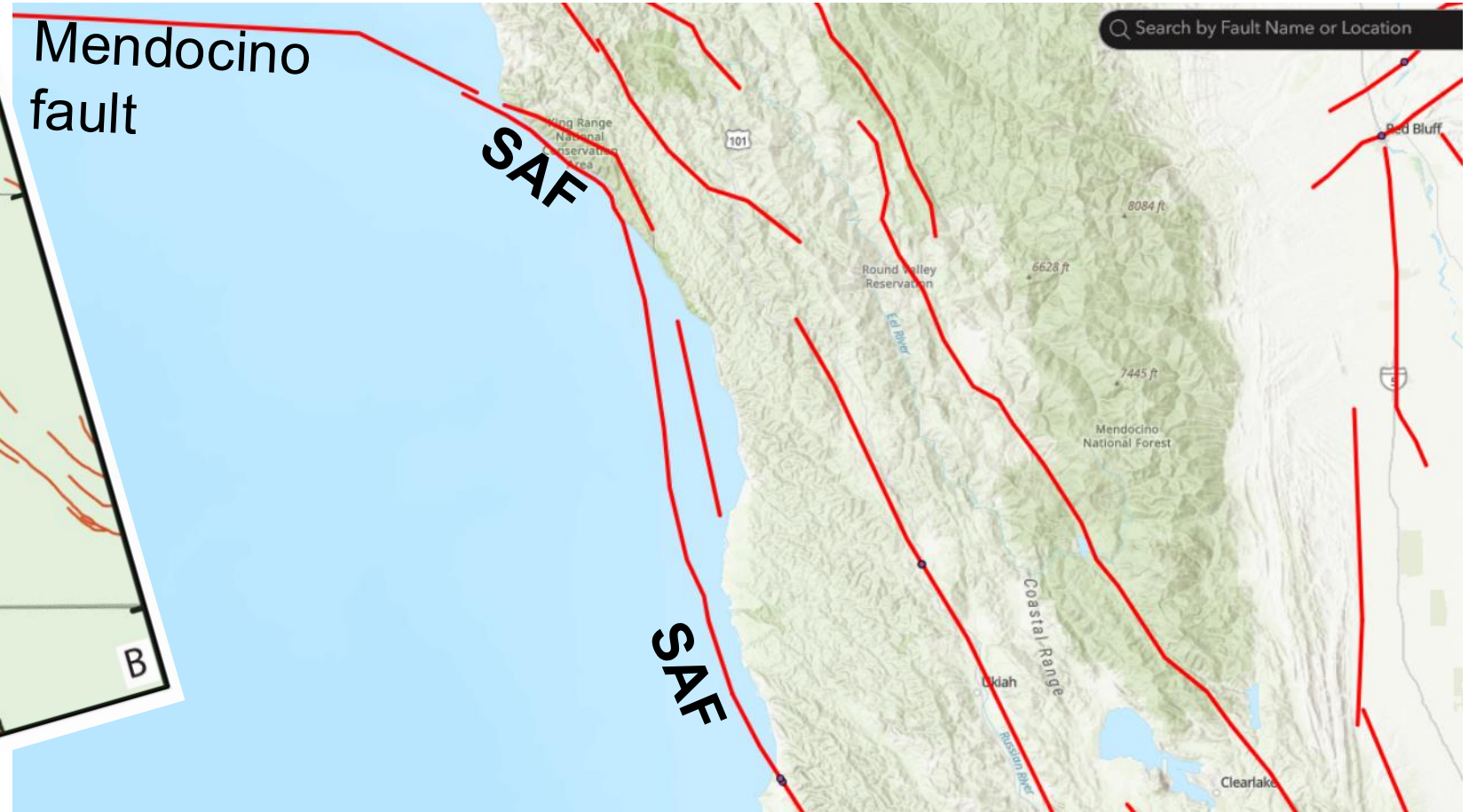
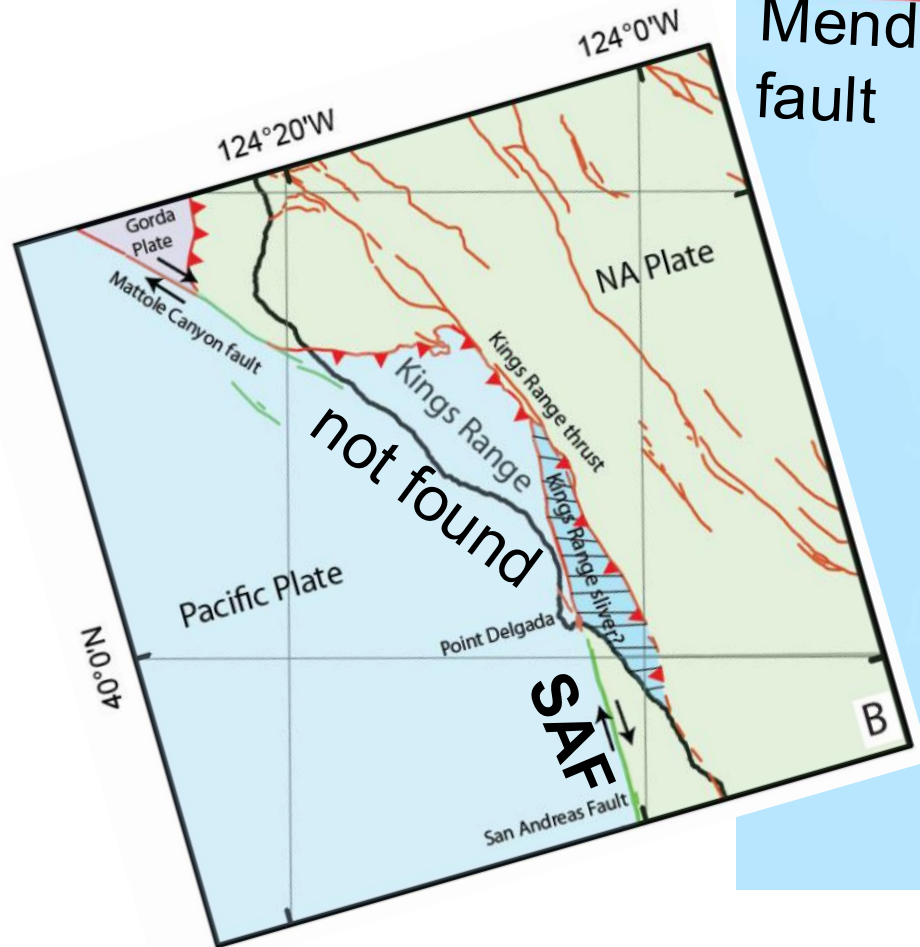
Slab shape and depth?



modified from Gong and McGuire, *JGR*, 2019
Figure: Jianhua Gong

What does the northern end of the SAF look like?

USGS National Seismic Hazard Model (NSHM) faults



offshore imaging, Jeff Beeson

Figures modified from Jeff Beeson

What is south of the slab and migrating triple junction? Is it a slab window?

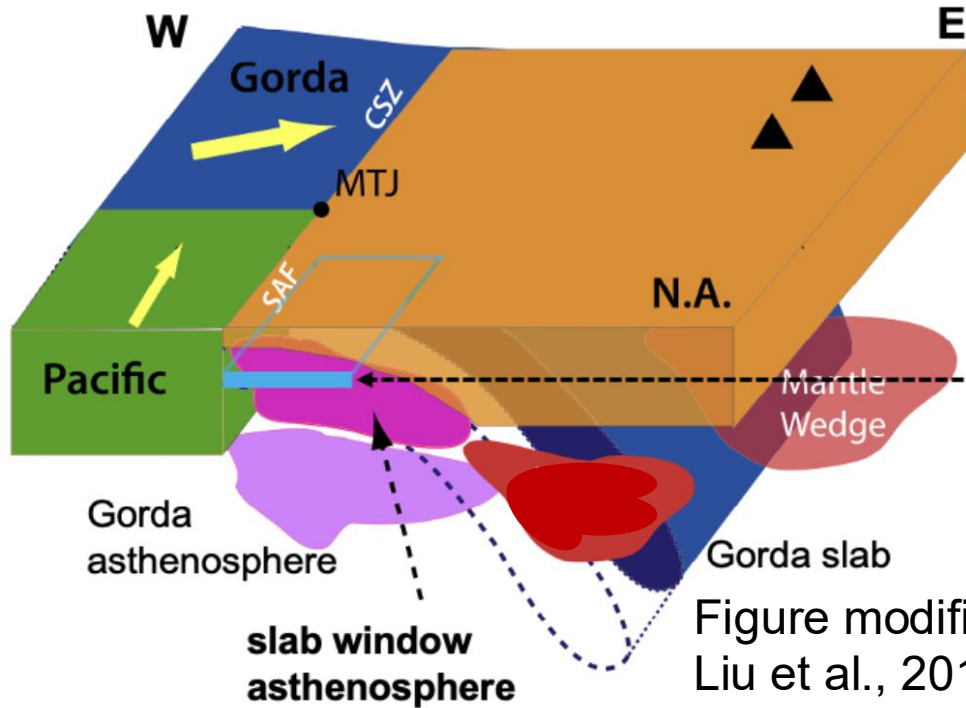
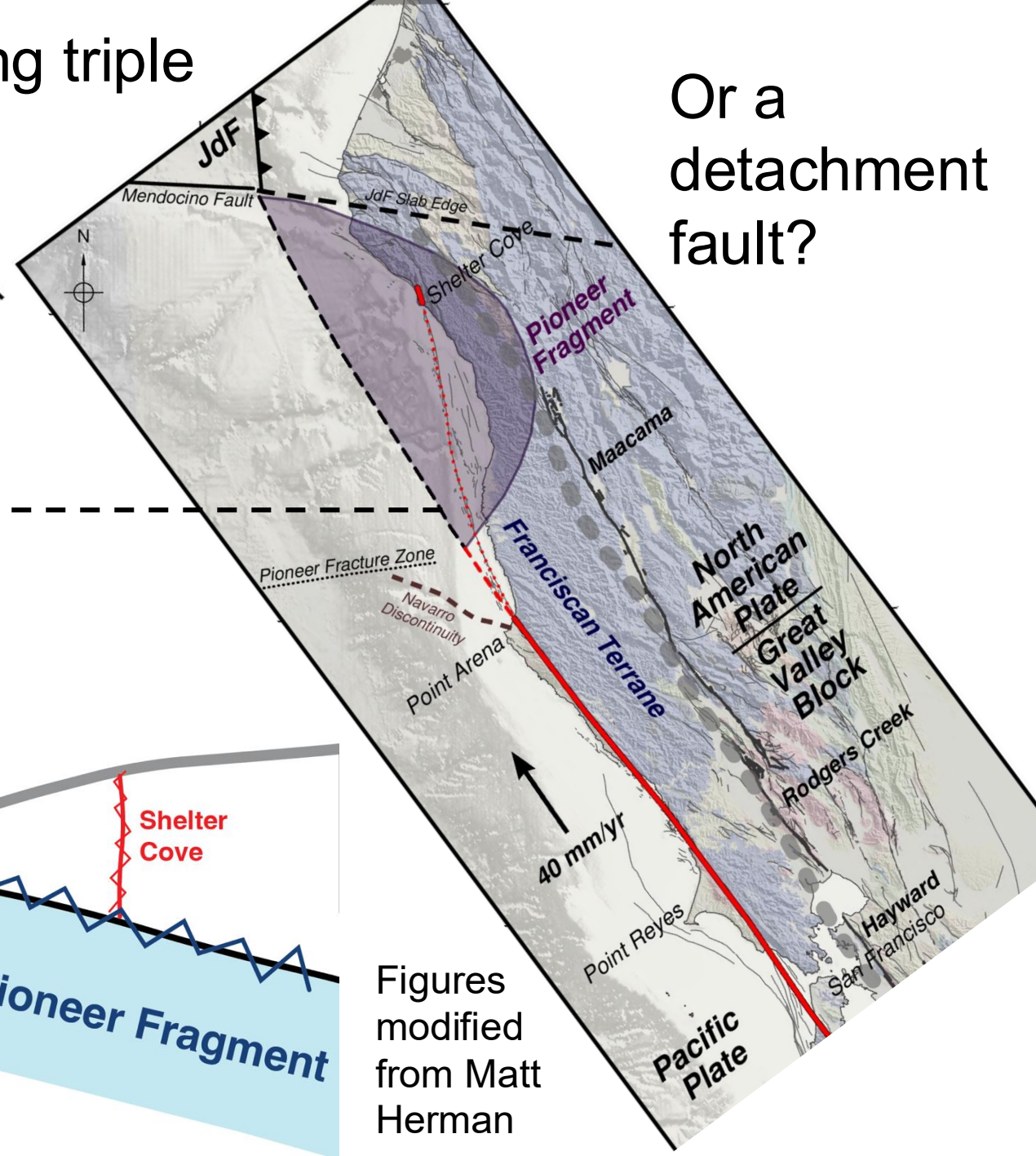
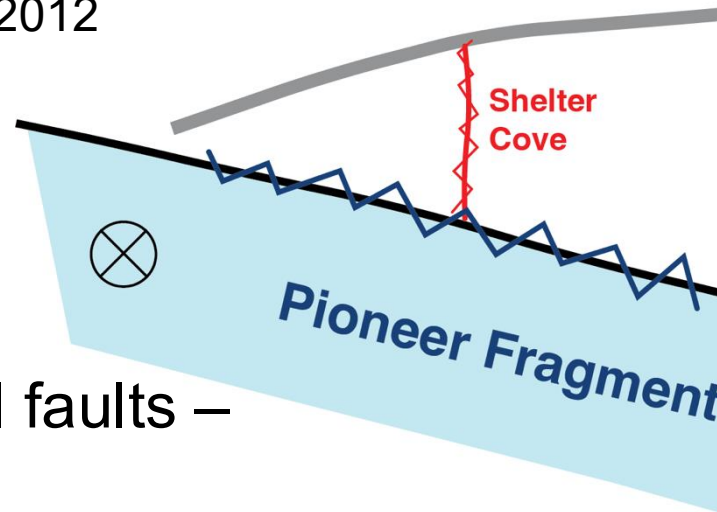


Figure modified from
Liu et al., 2012

role of volcanics in
reconstruction of migrating triple
junction – Doug Wilson

detachment may 'unpin' crustal faults –
higher coseismic displacement

Or a
detachment
fault?



Figures
modified
from Matt
Herman

New tremor and LFE observations

Are tremor and LFEs

- on the slab, putting it much farther south?
- on a detachment?
- related to crustal faults?

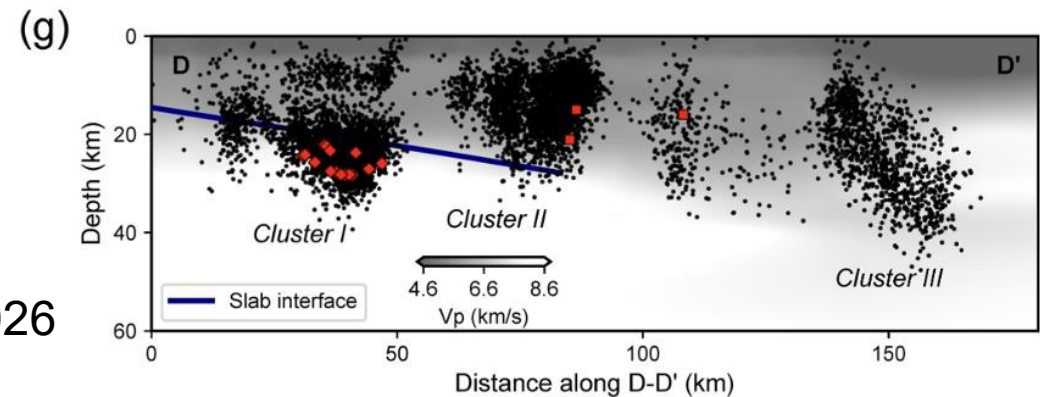
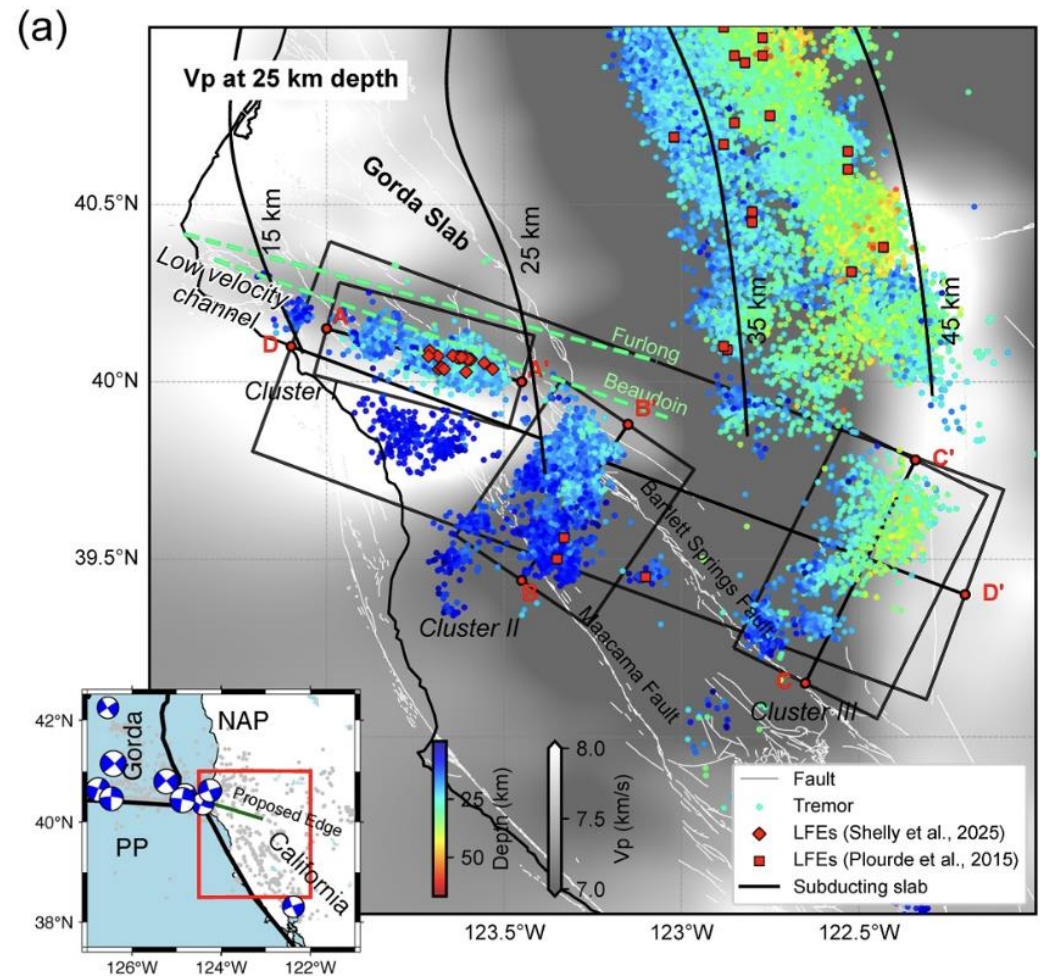


Figure from Lu & Ide, 2026



FOMO?

Presentations with permissions will be posted on workshop website

Join us!
Email organizers to
join future activities:
White paper; proposals

