

**POST-GRADUATION EMPLOYMENT:**

**Nanyang Assistant Professor (June 2019 to present)**

**Assistant Professor (Dec 2017 to May 2019)**

Asian School of the Environment | Earth Observatory of Singapore

Nanyang Technological University

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Past: Senior Research Fellow (Jul 2013 to Dec 2017); Research Fellow (Feb 2010 to Jun 2013)  
Earth Observatory of Singapore | Nanyang Technological University

**EDUCATION:**

- Doctor of Philosophy in Geology, California Institute of Technology, 2010
- Master of Science (Geological Sciences), San Diego State University, 2006
- Bachelor of Science with honor (Geology), California Institute of Technology, 2000

**PRIMARY RESEARCH INTERESTS:**

- neotectonics, paleoseismology, paleogeodesy, and tectonic geomorphology
- earthquake recurrence, rupture repeatability, fault segmentation, and fault interactions
- temporal variability in interseismic deformation and strain accumulation
- Holocene relative sea-level change and glacial isostatic adjustment

**PROFESSIONAL SOCIETIES:**

- American Geophysical Union; Geological Society of America; Seismological Society of America; Asia Oceania Geosciences Society; Sigma Xi, The Scientific Research Society

**ADVISING AND TEACHING:**

- Advisor of 3 postdocs at the Earth Observatory of Singapore (EOS) at NTU, 2017–present
- Advisor of 1 PhD student in the Asian School of the Environment (ASE) at NTU, 2018–present
- Co-advisor of 4 PhD students in the Asian School of the Environment (ASE) at NTU, 2011–present
- Co-advised a post-undergraduate research assistant interning at EOS, 2015–2017
- Advised 1 undergraduate Final Year Project in the Asian School of the Environment (ASE) at NTU, 2018–2019
- Advised 2 undergraduates through NTU's CN Yang Scholars Undergraduate Research Experience program, 2016–2019
- Advised 3 undergraduates through NTU's Undergraduate Research Experience on Campus (URECA) program, 2012–2015
- Advised 8 undergraduates through Caltech's Summer Undergraduate Research Fellowships (SURF) program, 2013–2019
- Teach *ES1003: Solid Earth* at NTU, 2018–present

**SCIENTIFIC COMMUNITY SERVICE:**

- Refereed 50 manuscripts or manuscript revisions for publication, 2003–present
- Reviewed 2 proposals for the U.S. National Science Foundation (NSF), 2011–present
- Reviewed 2 proposals for the French National Research Agency (ANR), 2018–present
- 2020 Asia Oceania Geosciences Society 17th Annual Meeting convener for the special session, “Subduction Zone Behavior, on Coseismic to Neotectonic Timescales”
- 2019 American Geophysical Union Fall Meeting co-convener for the special session, “Segmentation and Supercycles: Observations and Models of Earthquake Recurrence Patterns”
- 2018 Asia Oceania Geosciences Society 15th Annual Meeting convener for the special session, “Bridging Observations from Geology and Geodesy to Understand Tectonic Deformation over Multiple Timescales”
- 2018 Asia Oceania Geosciences Society 15th Annual Meeting co-convener for the special session, “Where History and Geology Intercept: Multidisciplinary Approaches to Extending our Chronology of Catastrophic Geologic Events”
- 2014 American Geophysical Union Fall Meeting co-convener for the special session, “Science and Societal Lessons from a Decade of Giant Megathrust Earthquakes”
- External examiner for the PhD defense of Jennifer Weil Accardo, IPGP, France, June 2014
- Participant, GeoPRISMS Subduction Cycles & Deformation (SCD) Implementation Workshop, Austin, TX, January 2011
- 2010 American Geophysical Union Fall Meeting co-convener for the special session, “Subduction-Zone Segmentation over Multiple Earthquake Cycles”
- 2009 Geological Society of America Annual Meeting co-convener for the special session, “Paleogeodesy at Subduction Zones”
- 2006 Seismological Society of America Annual Meeting co-convener for the special session, “The Giant Sumatran Earthquakes of 2004 and 2005”

**OUTREACH ACTIVITIES:**

- Interviewed for a documentary on Channel News Asia (CNA), “Carbon Conundrum”, which aired March 2020 (<https://www.channelnewsasia.com/news/video-on-demand/carbon-conundrum>)
- Contributed to an exhibition at the Sentosa Nature Discovery (SND) Geology Centre
- Contributed to an exhibition at the Science Centre Singapore, “Earth: Our Untamed Planet”
- Organized a geological field trip for CN Yang Scholars at NTU to eastern California, July 2016
- Public lectures given to various polytechnic and high schools in Singapore
- Lecture given to foreign government officials as part of the Ministry of Foreign Affairs (MFA) Singapore course entitled “Natural Disaster Risk Reduction and Management,” August 2011
- Development of a website, educational exercises (undergraduate level), and a trail guide for the lay public for the offset of Wallace Creek along the San Andreas fault in the Carrizo Plain. The website URL is <http://www.scec.org/wallacecreek/> and the brochure and class exercises are available in PDF format from the website.

**SELECTED AWARDS AND HONORS:**

- 2019 Recipient, Nanyang Assistant Professorship (NAP), Nanyang Technological University
- 2019 Recipient, Singapore National Research Foundation (NRF) Fellowship
- 2015 Exceptional Reviewer for *Geosphere*
- 2007 recipient of the Outstanding Student Paper Award, Seismology Section, American Geophysical Union Fall Meeting, December 2007, San Francisco, CA
- 2006 recipient of the Outstanding Student Presentation Award, Seismological Society of America Annual Meeting, April 2006, San Francisco, CA
- 2005 recipient of the Outstanding Student Presentation Award, Seismological Society of America Annual Meeting, April 2005, Incline Village, NV
- 2003–2004 recipient of the Special Institute Fellowship in the Division of Geological and Planetary Sciences at Caltech
- National Science Foundation (NSF) Graduate Research Fellowship  
2002 Honorable Mention awardee
- recipient of various awards and scholarships in the Department of Geological Sciences at SDSU, 2001–2003
- winner of the 2000 Deans' Cup award (at Caltech), in recognition of efforts to improve the quality of undergraduate life at Caltech and to establish lines of communication with members of the faculty and administration; accompanied by a \$200 prize
- 1999–2000 recipient of the Ian Campbell Award in Geology (at Caltech), for outstanding performance in field geology courses during the 1999–2000 academic year; accompanied by the award of a Brunton Compass
- 1998–1999 recipient of the Fritz Burns Prize in Geology (at Caltech), in recognition of one's potential to make a significant contribution in the earth sciences through research; accompanied by a \$2500 grant to support ongoing research

**EXTERNAL FUNDING:**

Singapore Ministry of Education (MOE) Academic Research Fund (AcRF) Tier 3 (2019), Award No. MOE2019-T3-1-004, Southeast Asia sea-level program (SEA<sup>2</sup>), Total Award to five PIs: SGD \$9,114,640 over 2020–2025; Individual Component: SGD \$1,511,466

Singapore National Research Foundation (NRF) Fellowship (2019), Award No. NRF-NRFF11-2019-0008, Sea-level and land-level change in Southeast Asia: a geological approach to quantifying hazard from rising seas and earthquakes, SGD \$2,692,800 over 2019–2024

**H-INDEX AND CITATIONS:**

Web of Science:	h-index: 18	1833 citations
Scopus:	h-index: 18	1989 citations
Google Scholar:	h-index: 21	2747 citations

**PUBLISHED PAPERS:**

Note: First-author students or researchers I have advised are underlined.

- Philibosian, B., and **A.J. Meltzner** (2020). Segmentation and supercycles: a catalog of earthquake rupture patterns from the Sumatran Sunda megathrust and other well-studied faults worldwide, *Quaternary Science Reviews*, doi:10.1016/j.quascirev.2020.106390, manuscript in press.
- Pham, D.T., A.D. Switzer, G. Huerta, **A.J. Meltzner**, H.M. Nguyen, and E.M. Hill (2019). Spatiotemporal variations of extreme sea levels around the South China Sea: assessing the influence of tropical cyclones, monsoons and major climate modes, *Natural Hazards* 98, 969-1001, doi:10.1007/s11069-019-03596-2.
- Kyriakopoulos, C., D.D. Oglesby, T.K. Rockwell, **A.J. Meltzner**, M. Barall, J.M. Fletcher, and D. Tulanowski (2019). Dynamic rupture scenarios in the Brawley Seismic Zone, Salton Trough, southern California, *Journal of Geophysical Research* 124, 3680-3707, doi:10.1029/2018JB016795.
- Peng, D., E.M. Hill, **A.J. Meltzner**, and A.D. Switzer (2019). Tide-gauge records show that the 18.61-year nodal tidal cycle can change high water levels by up to 30 cm, *Journal of Geophysical Research* 124, 736-749, doi:10.1029/2018JC014695.
- Rockwell, T.K., **A.J. Meltzner**, and E.C. Haaker (2018). Dates of the two most recent surface ruptures on the southernmost San Andreas fault recalculated by precise dating of Lake Cahuilla dry periods, *Bulletin of the Seismological Society of America* 108, 2634-2649, doi:10.1785/0120170392.
- Majewski, J.M., A.D. Switzer, **A.J. Meltzner**, P.R. Parham, B.P. Horton, S.L. Bradley, J. Pile, H.-W. Chiang, X. Wang, C.T. Ng, J. Tanzil, M. Müller, and A. Mujahid (2018). Holocene relative sea-level records from coral microatolls in Western Borneo, South China Sea, *The Holocene* 28, 1431-1442, doi:10.1177/0959683618777061.
- Morgan, P.M., L. Feng, **A.J. Meltzner**, E.O. Lindsey, L.L.H. Tsang, and E.M. Hill (2017). Sibling earthquakes generated within a persistent rupture barrier on the Sunda megathrust under Simeulue Island, *Geophysical Research Letters* 44, 2159-2166, doi:10.1002/2016GL071901.
- Meltzner, A.J.**, A.D. Switzer, B.P. Horton, E. Ashe, Q. Qiu, D.F. Hill, S.L. Bradley, R.E. Kopp, E.M. Hill, J.M. Majewski, D.H. Natawidjaja, and B.W. Suwargadi (2017). Half-metre sea-level fluctuations on centennial timescales from mid-Holocene corals of Southeast Asia, *Nature Communications* 8, 14387, doi:10.1038/ncomms14387.
- Tsang, L.L.H., **A.J. Meltzner**, E.M. Hill, J.T. Freymueller, and K. Sieh (2015). A paleogeodetic record of variable interseismic rates and megathrust coupling at Simeulue Island, Sumatra, *Geophysical Research Letters* 42, 10585-10594, doi:10.1002/2015GL066366.
- Tsang, L.L.H., **A.J. Meltzner**, B. Philibosian, E.M. Hill, J.T. Freymueller, and K. Sieh (2015). A 15 year slow-slip event on the Sunda megathrust offshore Sumatra, *Geophysical Research Letters* 42, 6630-6638, doi:10.1002/2015GL064928.
- Meltzner, A.J.** (2015). Earthquakes: the rise and fall of an island (News & Views), *Nature Geoscience* 8, 501-502, doi:10.1038/ngeo2477.
- Meltzner, A.J.**, K. Sieh, H.-W. Chiang, C.-C. Wu, L.L.H. Tsang, C.-C. Shen, E.M. Hill, B.W. Suwargadi, D.H. Natawidjaja, B. Philibosian, and R.W. Briggs (2015). Time-varying interseismic strain rates and similar seismic ruptures on the Nias–Simeulue patch of the Sunda megathrust, *Quaternary Science Reviews* 122, 258-281, doi:10.1016/j.quascirev.2015.06.003.
- Meltzner, A.J.**, and C.D. Woodroffe (2015). Coral microatolls, in *Handbook of Sea-Level Research*, I. Shennan, A.J. Long, and B.P. Horton (Editors), John Wiley & Sons, Ltd., Chichester, UK, 125-145, doi:10.1002/9781118452547.ch8.
- Fujino, S., K. Sieh, **A.J. Meltzner**, E. Yulianto, and H.-W. Chiang (2014). Ambiguous correlation of precisely dated coral detritus with the tsunamis of 1861 and 1907 at Simeulue Island, Aceh Province, Indonesia, *Marine Geology* 357, 384-391, doi:10.1016/j.margeo.2014.09.047.
- Lee, J.-M., E.A. Boyle, I.S. Nurhati, M. Pfeiffer, **A.J. Meltzner**, and B. Suwargadi (2014). Coral-based history of lead and lead isotopes of the surface Indian Ocean since the mid-20th century, *Earth and Planetary Science Letters* 398, 37-47, doi:10.1016/j.epsl.2014.04.030.

- Bursik, M., K. Sieh, and **A. Meltzner** (2014). Deposits of the most recent eruption in the southern Mono Craters, California: description, interpretation and implications for regional marker tephras, *Journal of Volcanology and Geothermal Research* 275, 114-131, doi:10.1016/j.jvolgeores.2014.02.015.
- Meltzner, A.J.**, K. Sieh, H.-W. Chiang, C.-C. Shen, B.W. Suwargadi, D.H. Natawidjaja, B. Philibosian, and R.W. Briggs (2012). Persistent termini of 2004- and 2005-like ruptures of the Sunda megathrust, *Journal of Geophysical Research* 117, B04405, doi:10.1029/2011JB008888.
- Meltzner, A.J.**, K. Sieh, H.-W. Chiang, C.-C. Shen, B.W. Suwargadi, D.H. Natawidjaja, B.E. Philibosian, R.W. Briggs, and J. Galetzka (2010). Coral evidence for earthquake recurrence and an A.D. 1390–1455 cluster at the south end of the 2004 Aceh–Andaman rupture, *Journal of Geophysical Research* 115, B10402, doi:10.1029/2010JB007499.
- Rockwell, T., D. Ragona, G. Seitz, R. Langridge, M.E. Aksoy, G. Ucar, M. Ferry, **A.J. Meltzner**, Y. Klinger, M. Meghraoui, D. Satir, A. Barka, and B. Akbalik (2009). Paleoseismology of the North Anatolian fault near the Marmara Sea: implications for fault segmentation and seismic hazard, in *Palaeoseismology: Historical and Prehistorical Records of Earthquake Ground Effects for Seismic Hazard Assessment*, K. Reicherter, A.M. Michetti, and P.G. Silva (Editors), The Geological Society, London, Special Publications 316, 31-54, doi:10.1144/SP316.3.
- Mériaux, A.-S., K. Sieh, R.C. Finkel, C.M. Rubin, M.H. Taylor, **A.J. Meltzner**, and F.J. Ryerson (2009). Kinematic behavior of southern Alaska constrained by westward decreasing postglacial slip rates on the Denali fault, Alaska, *Journal of Geophysical Research* 114, B03404, doi:10.1029/2007JB005053.
- Sieh, K., D.H. Natawidjaja, **A.J. Meltzner**, C.-C. Shen, H. Cheng, K.-S. Li, B.W. Suwargadi, J. Galetzka, B. Philibosian, and R.L. Edwards (2008). Earthquake supercycles inferred from sea-level changes recorded in the corals of West Sumatra, *Science* 322, 1674-1678, doi:10.1126/science.1163589.
- Konca, A.O., J.-P. Avouac, A. Sladen, **A.J. Meltzner**, K. Sieh, P. Fang, Z. Li, J. Galetzka, J. Genrich, M. Chlieh, D.H. Natawidjaja, Y. Bock, E.J. Fielding, C. Ji, and D.V. Helmberger (2008). Partial rupture of a locked patch of the Sumatra megathrust during the 2007 earthquake sequence, *Nature* 456, 631-635, doi:10.1038/nature07572.
- Shen, C.-C., K.-S. Li, K. Sieh, D. Natawidjaja, H. Cheng, X. Wang, R.L. Edwards, D.D. Lam, Y.-T. Hsieh, T.-Y. Fan, **A.J. Meltzner**, F.W. Taylor, T.M. Quinn, H.-W. Chiang, and K.H. Kilbourne (2008). Variation of initial  $^{230}\text{Th}/^{232}\text{Th}$  and limits of high precision U–Th dating of shallow-water corals, *Geochimica et Cosmochimica Acta* 72, 4201-4223, doi:10.1016/j.gca.2008.06.011.
- Taylor, F.W., R.W. Briggs, C. Frohlich, A. Brown, M. Hornbach, A.K. Papabatu, **A.J. Meltzner**, and D. Billy (2008). Rupture across arc segment and plate boundaries in the 1 April 2007 Solomons earthquake, *Nature Geoscience* 1, 253-257, doi:10.1038/ngeo159.
- Konca, A.O., V. Hjorleifsdottir, T.-R. A. Song, J.-P. Avouac, D.V. Helmberger, C. Ji, K. Sieh, R. Briggs, and **A. Meltzner** (2007). Rupture kinematics of the 2005  $M_w$  8.6 Nias–Simeulue earthquake from the joint inversion of seismic and geodetic data, *Bulletin of the Seismological Society of America* 97, S307-S322, doi:10.1785/0120050632.
- Meltzner, A.J.**, T.K. Rockwell, and L.A. Owen (2006). Recent and long-term behavior of the Brawley fault zone, Imperial Valley, California: an escalation in slip rate?, *Bulletin of the Seismological Society of America* 96, 2304-2328, doi:10.1785/0120050233.
- Briggs, R.W., K. Sieh, **A.J. Meltzner**, D. Natawidjaja, J. Galetzka, B. Suwargadi, Y. Hsu, M. Simons, N. Hananto, I. Suprihanto, D. Prayudi, J.-P. Avouac, L. Prawirodirdjo, and Y. Bock (2006). Deformation and slip along the Sunda megathrust in the great 2005 Nias–Simeulue earthquake, *Science* 311, 1897-1901, doi:10.1126/science.1122602.
- Subarya, C., M. Chlieh, L. Prawirodirdjo, J.-P. Avouac, Y. Bock, K. Sieh, **A.J. Meltzner**, D.H. Natawidjaja, and R. McCaffrey (2006). Plate-boundary deformation associated with the great Sumatra–Andaman earthquake, *Nature* 440, 46-51, doi:10.1038/nature04522.
- Meltzner, A.J.**, K. Sieh, M. Abrams, D.C. Agnew, K.W. Hudnut, J.-P. Avouac, and D.H. Natawidjaja (2006). Uplift and subsidence associated with the great Aceh–Andaman earthquake of 2004, *Journal of Geophysical Research* 111, B02407, doi:10.1029/2005JB003891.

**Meltzner, A.J.**, and T.K. Rockwell (2004). The Tejon Pass earthquake of 22 October 1916: an  $M$  5.6 event on the Lockwood Valley and San Andreas faults, southern California, *Bulletin of the Seismological Society of America* 94, 1293-1304, doi:10.1785/012003204.

Klinger, Y., K. Sieh, E. Altunel, A. Akoglu, A. Barka, T. Dawson, T. Gonzalez, **A. Meltzner**, and T. Rockwell (2003). Paleoseismic evidence of characteristic slip on the western segment of the North Anatolian fault, Turkey, *Bulletin of the Seismological Society of America* 93, 2317-2332, doi:10.1785/0120010270.

Girty, G.H., J. Marsh, **A. Meltzner**, J.R. McConnell, D. Nygren, J. Nygren, G.M. Prince, K. Randall, D. Johnson, B. Heitman, and J. Nielsen (2003). Assessing changes in elemental mass as a result of chemical weathering of granodiorite in a Mediterranean (hot summer) climate, *Journal of Sedimentary Research* 73, 434-443, doi:10.1306/091802730434.

**Meltzner, A.J.**, and D.J. Wald (2003). Aftershocks and triggered events of the great 1906 California earthquake, *Bulletin of the Seismological Society of America* 93, 2160-2186, doi:10.1785/0120020033.

**Meltzner, A.J.**, and D.J. Wald (2002). Felt reports and intensity assignments for aftershocks and triggered events of the great 1906 California earthquake, *U. S. Geological Survey Open-File Report 02-37*, 301 pp.

Scientists from USGS, SCEC, and CDMG (2000). Preliminary report on the 16 October 1999  $M$  7.1 Hector Mine, California, earthquake, *Seismological Research Letters* 71, 11-23.

**Meltzner, A.J.**, and D.J. Wald (1999). Foreshocks and aftershocks of the great 1857 California earthquake, *Bulletin of the Seismological Society of America* 89, 1109-1120.

**Meltzner, A.J.**, and D.J. Wald (1998). Foreshocks and aftershocks of the great 1857 California earthquake, *U. S. Geological Survey Open-File Report 98-465*, 115 pp.

**MANUSCRIPTS IN PROGRESS:** Note: First-author students or researchers I have advised are underlined.

Wan, J.X.W., **A.J. Meltzner**, A.D. Switzer, K. Lin, X. Wang, S.L. Bradley, D.H. Natawidjaja, B.W. Suwargadi, and B.P. Horton (2020). Relative sea-level stability and the radiocarbon marine reservoir correction at Natuna Island, Indonesia, since 6400 yr BP, *Marine Geology*, manuscript in review.

Mallick, R., **A.J. Meltzner**, L.L.H. Tsang, E.O. Lindsey, L. Feng, and E.M. Hill (2020). Long-lived shallow transient slip events on the Sunda megathrust, manuscript in review.

Morgan, P.M., L. Feng, **A.J. Meltzner**, Q. Qiu, and E.M. Hill (2020). Diverse slip behavior of the Banyak Islands sub-segment of the Sunda megathrust in Sumatra, Indonesia, manuscript in review.

Pham, D.T., A.D. Switzer, E.M. Hill, **A.J. Meltzner**, and H.X. Nguyen (2020). A new perspective on interannual sea-level variability around the South China Sea based on historical tide-gauge data, *Global and Planetary Change*, manuscript in review.

Rockwell, T.K., **A.J. Meltzner**, E.C. Haaker, D.V. Madugo, and E. White (2020). A precise chronology of the past seven Lake Cahuilla highstands and intervening dry periods, and implications for dates of prehistoric fault ruptures in the Salton Trough, southeastern California, manuscript in preparation.

**Meltzner, A.J.**, T.K. Rockwell, R.Y. Tsang, and P.M. Figueiredo (2020). Slip variability and temporal clustering along the Imperial fault at Mesquite Basin, Imperial Valley, California, and possible through-going rupture to the San Andreas fault, manuscript in preparation.

**Meltzner, A.J.**, J.X.W. Wan, A.D. Switzer, B.P. Horton, S.L. Bradley, J.M. Majewski, D.H. Natawidjaja, and B.W. Suwargadi (2020). An extended record of sea-level fluctuations on centennial timescales from mid-Holocene corals of Southeast Asia, manuscript in preparation.

**Meltzner, A.J.**, and B. Philibosian (2020). Temporal variability of interseismic strain accumulation along subduction megathrusts, on timescales of decades to centuries, manuscript in preparation.



Majewski, J.M., **A.J. Meltzner**, A.D. Switzer, B.P. Horton, D.H. Natawidjaja, and B.W. Suwargadi (2020). Uncertainties in coral microatoll relative sea level studies, manuscript in preparation.

Majewski, J.M., **A.J. Meltzner**, A.D. Switzer, B.P. Horton, C.-C. Wu, H.-W. Chiang, C.-C. Shen, D.H. Natawidjaja, and B.W. Suwargadi (2020). Sea level index sequences from coral microatolls reveal details of higher-than-present relative sea level by 7.2 ka in the Riau Islands, Indonesia, manuscript in preparation.

Gao, M., **A.J. Meltzner**, X. Xu, G. Zeilinger, Y. Wang, and X. Li (2020). Geomorphic indices indicate differential vertical tectonic movement in Peninsular Malaysia, manuscript in preparation.

#### **KEYNOTE / INVITED PRESENTATIONS:**

Invited seminar at National Institute of Geological Sciences, University of the Philippines, Diliman (Quezon City, Philippines), November 2018: "Coral microatolls as a tool for subduction zone paleoseismology: identifying rare events along the Sunda megathrust and the Manila Trench".

Earth Sciences in the Next Decade: Challenges and New Horizons Workshop, Academia Sinica (Taipei, Taiwan), November 2018: "Coral microatolls as a tool for subduction zone paleoseismology: identifying rare events along the Sunda megathrust and the Manila Trench".

Invited seminar at Departemen Teknik Geologi, Universitas Gadjah Mada (Yogyakarta, Indonesia), May 2018: "Reading coral archives of relative sea-level change to infer hazards from rising seas and earthquakes".

Asia Oceania Geosciences Society 14th Annual Meeting, Singapore, August 2017: "Variable coupling and moderate ruptures at the boundary between the 2004 and 2005 great ruptures of the Sunda megathrust off Sumatra", Abstract SE04-A018.

Asia Oceania Geosciences Society 13th Annual Meeting, Beijing, China, August 2016: "Over decades to centuries, interseismic coupling and deformation rates along subduction zones are not steady", Abstract SE34-A009.

American Geophysical Union 2015 Fall Meeting, San Francisco, CA, December 2015: "Over decades to centuries, interseismic coupling and deformation rates along subduction zones are not steady", Abstract G23C-04.

Asia Oceania Geosciences Society 11th Annual Meeting, Sapporo, Japan, July 2014: "Details of the mid-Holocene relative sea-level highstand at Belitung Island, Indonesia, on the Sunda Shelf, from coral microatolls", Abstract IG07-A004.

American Geophysical Union 2012 Fall Meeting, San Francisco, CA, December 2012: "Coral microatoll paleogeodesy in Sumatra: details of the 1861 predecessor to the 2005 Nias-Simeulue earthquake", Abstract G11C-08.

GeoPRISMS Subduction Cycles & Deformation (SCD) Implementation Workshop, Austin, TX, January 2011: "Persistent rupture segmentation along the Sunda megathrust off Sumatra".

Southern San Andreas Fault Evaluation (SoSAFE) Workshop, in conjunction with the Southern California Earthquake Center 2009 Annual Meeting, Palm Springs, CA, September 2009: "Slip and timing for the past six events, Imperial fault".

Invited seminar at Department of Geological Sciences, San Diego State University (San Diego, CA), November 2008: "Earthquake recurrence and long-term segmentation near the boundary of the 2004 and 2005 Sunda megathrust ruptures".

**SELECTED ABSTRACTS:**

*Note: First-author students or researchers I have advised are underlined.*

- Sarkawi, G., **A. Meltzner**, A. Gopal, J. Lim, A. Mitchell, L.F. Sarmiento, J. Weil-Accardo, K. Maxwell, J. Komori, K. Lin, X. Wang, C.-C. Shen, S.-Y. Gong, Y. Lu, and N. Ramos (2020). Tectonic uplift and subsidence inferred from coral archives of relative sea level in Balaoan, La Union, Philippines, Abstract SE21-A011 accepted for the 17th Annual Meeting, Asia Oceania Geosciences Society, Hongcheon, South Korea, 29 June–3 July.
- Lim, J., A. Gopal, A. Mitchell, **A. Meltzner**, A. Chan, G. Sarkawi, J. Weil-Accardo, K. Maxwell, and N. Ramos (2020). An investigation of sea-level variability over short distances at Cabugao, Ilocos Sur, Philippines, Abstract SE21-A008 accepted for the 17th Annual Meeting, Asia Oceania Geosciences Society, Hongcheon, South Korea, 29 June–3 July.
- Gopal, A., A. Mitchell, J. Lim, **A. Meltzner**, A. Chan, G. Sarkawi, J. Weil-Accardo, K. Maxwell, T.-L. Yu, C.-C. Shen, S.-Y. Gong, K. Lin, X. Wang, P. Parham, and N. Ramos (2020). A preliminary relative sea-level history from fossil corals at Cabugao, Ilocos Sur, Philippines, Abstract SE21-A009 accepted for the 17th Annual Meeting, Asia Oceania Geosciences Society, Hongcheon, South Korea, 29 June–3 July.
- Mitchell, A., J. Lim, A. Gopal, **A. Meltzner**, A. Chan, G. Sarkawi, X. Li, A.M. Cantillep, L.F. Sarmiento, J. Komori, T.-L. Yu, C.-C. Shen, S.-Y. Gong, J. Weil-Accardo, K. Maxwell, K. Lin, Y. Lu, X. Wang, and N. Ramos (2020). Strategies to improve geochronologic constraints on coral microatolls in the Philippines, Abstract SE21-A010 accepted for the 17th Annual Meeting, Asia Oceania Geosciences Society, Hongcheon, South Korea, 29 June–3 July.
- Li, X., J. Lim, A. Gopal, A. Mitchell, G. Sarkawi, **A. Meltzner**, L.F. Sarmiento, J. Komori, K. Maxwell, J. Weil-Accardo, T.-L. Yu, C.-C. Shen, S.-Y. Gong, K. Lin, Y. Lu, X. Wang, and N. Ramos (2020). Mid-Holocene sea-level and paleoseismic histories in Badoc, Ilocos Norte, Philippines, Abstract SE21-A013 accepted for the 17th Annual Meeting, Asia Oceania Geosciences Society, Hongcheon, South Korea, 29 June–3 July.
- Cantillep, A.M., N. Ramos, **A. Meltzner**, L.F. Sarmiento, J. Lim, A. Mitchell, A. Gopal, J. Weil-Accardo, T.-L. Yu, C.-C. Shen, J. Komori (2020). Late Holocene sea-level in Gabut Island, Ilocos Norte, Philippines, derived from fossil coral microatolls: initial results and implications, Abstract SE21-A012 accepted for the 17th Annual Meeting, Asia Oceania Geosciences Society, Hongcheon, South Korea, 29 June–3 July.
- Aung, L.T., I. Watkinson, S. Min, S.N. Khaing, M. Thant, T. Aung, S.T. Tun, **A. Meltzner** (2020). Mapping the macroseismic effects of the Mw 6.8 Thabeikkyin earthquake in 2012, Upper Myanmar, Abstract SE25-A019 accepted for the 17th Annual Meeting, Asia Oceania Geosciences Society, Hongcheon, South Korea, 29 June–3 July.
- Majewski, J., **A.J. Meltzner**, A.D. Switzer, S. Bradley, B.W. Suwargadi, R.E. Kopp, N. Khan, T. Shaw, D. Natawidjaja, and B.P. Horton (2019). Extending instrumental sea-level records with coral microatolls, Abstract OS13A-07 presented at the 2019 Fall Meeting, American Geophysical Union, San Francisco, California, 9–13 December.
- Wan, J.X.W., **A.J. Meltzner**, A.D. Switzer, K. Lin, X. Wang, S. Bradley, D. Natawidjaja, B.W. Suwargadi, and B.P. Horton (2019). Relative sea-level stability and the radiocarbon marine reservoir correction at Natuna Island, Indonesia, since 6400 yr BP, Abstract PP31C-1644 presented at the 2019 Fall Meeting, American Geophysical Union, San Francisco, California, 9–13 December.
- Sarkawi, G.M., **A.J. Meltzner**, A. Gopal, J. Lim, A.P. Mitchell, L.F. Sarmiento, J. Weil-Accardo, K.V. Maxwell, J. Komori, C.-C. Shen, S.-Y. Gong, K. Lin, Y. Lu, X. Wang, and N.T. Ramos (2019). Tectonic uplift and subsidence inferred from coral microatoll archives of relative sea level in La Union province, northwestern Luzon, Philippines, Abstract T33E-0368 presented at the 2019 Fall Meeting, American Geophysical Union, San Francisco, California, 9–13 December.
- Philibosian, B., and **A.J. Meltzner** (2019). Segmentation and supercycles: a catalog of earthquake rupture patterns from well-studied faults worldwide, Abstract T31G-0346 presented at the 2019 Fall Meeting, American Geophysical Union, San Francisco, California, 9–13 December.



- Wang, Y., L.T. Aung, X. Shi, S.N. Khaing, E.M. Weldon, S. Min, T.E. Dawson, Y.G. Gavillot, **A.J. Meltzner**, R.J. Weldon, M. Thant, and Nam Ma Fault Survey Team (2019). The short rupture interval of the westernmost Nam Ma fault in the past millennium, Abstract T31A-04 presented at the 2019 Fall Meeting, American Geophysical Union, San Francisco, California, 9–13 December.
- Gao, M., **A.J. Meltzner**, X. Xu, G. Zeilinger, and X. Li (2019). Geomorphic indices indicate differential vertical tectonic movement in Peninsular Malaysia, Abstract T31A-05 presented at the 2019 Fall Meeting, American Geophysical Union, San Francisco, California, 9–13 December.
- Majewski, J., **A. Meltzner**, A. Switzer, D. Natawidjaja, B. Suwargadi, and B. Horton (2019). Extending instrumental sea-level records in Southeast Asia using coral microatolls, Abstract OS12-A006 presented at the 16th Annual Meeting, Asia Oceania Geosciences Society, Singapore, 29 July–2 August.
- Sarkawi, G., **A. Meltzner**, A. Gopal, J. Lim, A. Mitchell, L.F. Sarmiento, J. Weil-Accardo, K. Maxwell, J. Komori, C.-C. Shen, S.-Y. Gong, K. Lin, Y. Lu, X. Wang, and N. Ramos (2019). Relative sea level and inferred tectonic uplift recorded by coral microatolls in La Union, Philippines, Abstract SE12-A006 presented at the 16th Annual Meeting, Asia Oceania Geosciences Society, Singapore, 29 July–2 August.
- Meltzner, A.J.** (2018). Coral microatolls as a tool for subduction zone paleoseismology: identifying rare events along the Sunda megathrust and the Manila Trench, Abstract presented at the 2018 Annual Meeting, Southern California Earthquake Center, Palm Springs, California, 9–12 September.
- Weil-Accardo, J., **A. Meltzner**, N. Ramos, K. Maxwell, K. Lin, Y. Lu, X. Wang, and P. Parham (2018). Relative sea-level changes recorded by coral microatolls above the Manila Trench in Ilocos Region (west Luzon, Philippines), Abstract SE21-A021 presented at the 15th Annual Meeting, Asia Oceania Geosciences Society, Honolulu, Hawaii, 4–8 June.
- Maxwell, K., J. Weil-Accardo, **A. Meltzner**, N. Ramos, K. Lin, Y. Lu, X. Wang, C.-C. Shen, and H. Tsutsumi (2018). Long- and short-term deformation along the Manila Trench: preliminary constraints from emergent coral reef terraces and coral microatolls in La Union, Philippines, Abstract SE21-A019 presented at the 15th Annual Meeting, Asia Oceania Geosciences Society, Honolulu, Hawaii, 4–8 June.
- Hill, E., **A. Meltzner**, Q. Qiu, J.D.P. Moore, L. Feng, R. Salman, B. Philibosian, E. Lindsey, L. Tsang, I. Hermawan, P. Banerjee, D. Natawidjaja, and K. Sieh (2018). Very long term variability in interseismic deformation: a case study from the Sumatran subduction zone, Abstract SS08-A007 presented at the 15th Annual Meeting, Asia Oceania Geosciences Society, Honolulu, Hawaii, 4–8 June.
- Majewski, J., D. Pham, **A. Meltzner**, A. Switzer, and B. Horton (2017). Testing microatoll sea-level record reliability against instrumental records, Abstract OS22-A004 presented at the 14th Annual Meeting, Asia Oceania Geosciences Society, Singapore, 7–11 August.
- Meltzner, A.**, P. Morgan, L. Tsang, L. Feng, E. Lindsey, and E. Hill (2017). Variable coupling and moderate ruptures at the boundary between the 2004 and 2005 great ruptures of the Sunda megathrust off Sumatra, Abstract SE04-A018 presented at the 14th Annual Meeting, Asia Oceania Geosciences Society, Singapore, 7–11 August.
- Meltzner, A.J.**, B. Philibosian, and K. Sieh (2017). Temporal variability of interseismic strain accumulation along subduction megathrusts, on timescales of decades to centuries, *Seismol. Res. Lett.* 87, 557.
- Philibosian, B., **A.J. Meltzner**, and K. Sieh (2017). Segmentation and supercycles: earthquake cycle complexities and the Sumatran Sunda megathrust as a behavior catalog, *Seismol. Res. Lett.* 87, 679.
- Meltzner, A.J.**, T.K. Rockwell, R.Y. Tsang, and P.M. Figueiredo (2016). Slip variability and temporal clustering along the Imperial fault at Mesquite Basin, Imperial Valley, California, and possible through-going rupture to the San Andreas fault, Abstract presented at the 2016 Annual Meeting, Southern California Earthquake Center, Palm Springs, California, 11–14 September.

**THESES:**

**Meltzer, A.J.** (2010). Earthquake recurrence, clustering, and persistent segmentation near the southern end of the 2004 Sunda megathrust rupture, Ph.D. Dissertation, California Institute of Technology, 300 pp. and online supplement. <http://resolver.caltech.edu/CaltechTHESIS:06012010-082222484>

**Meltzer, A.J.** (2006). Characterization of the long-term behavior of the Imperial and Brawley faults, Imperial Valley, California, Master's Thesis, San Diego State University, 149 pp. and 4 plates.

**Meltzer, A.J.** (2000). Aftershocks of the great 1906 San Francisco earthquake, based on intensity observations, Undergraduate Thesis, California Institute of Technology, 66 pp.