

Yen Joe Tan
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Citizenship: Malaysia

Education

- 2014-present **Columbia University**, New York, NY, USA
Ph.D. Marine Geophysics/Seismology
Advisors: Dr. Maya Tolstoy & Dr. Felix Waldhauser
- 2014-2016 *M.A. Earth and Environmental Sciences*
- 2010-2013 **Lafayette College**, Easton, PA, USA
B.S. Geology & A.B. Anthropology and Sociology (Summa Cum Laude)

Awards/ Funding

- 2016 Chevron Student Initiative Fund (\$1,500): Design, build, and deploy low cost MEMS-accelerometer-based strong-motion sensors in Nepal
- 2014 Columbia University Dean's Fellowship (\$168,000)
- 2013 Phi Beta Kappa honors society
- 2013 American Geophysical Union (AGU) Outstanding Student Paper Award
- 2013 Lafayette College James L. Dyson Geology Award
- 2013 Woods Hole Oceanographic Institution Summer Student Fellowship
- 2012 Geology Society of America/ExxonMobil Field Camp Scholar Award

Field and Sea Experience

- East Pacific Rise, 2016.** 30-day RV *Atlantis* cruise. Multibeam mapping, dredging, Sentry AUV operation, and rock sampling using the submersible Alvin at off-axis Siqueiros seamounts
- Botswana, 2014.** 18-day active-source experiment to understand the initiation and evolution of the East African continental rift system
- Oregon, 2014.** 14-day RV *Thompson* cruise. Ocean bottom seismometer recovery
- Wyoming, 2013.** 5-day field mapping at Bighorn Basin for Structural Geology class
- Alaska, 2012.** 14-day International Volcanology Field School at Katmai National Park
- Malaysia, 2011.** 10-day field survey at the Langkawi archipelago as part of a marine mammals conservation effort

Publications and Presentations

In preparation

Tan, Y. J., Tolstoy, M., Waldhauser, F., and Wilcock, W. S. D. Precursory changes in seismic velocity and seismicity rate before the 2015 Axial Seamount eruption.

Tan, Y. J., Tolstoy, M., Waldhauser, F., and Bohnenstiehl, D. R. Tidal triggering of microearthquakes over an eruption cycle at 9°50'N East Pacific Rise.

Peer reviewed journal publications

Tan, Y. J. and Maharjan, R. (201?) What googling trends tell us about public interest in earthquakes, in review at *Seismol. Res. Lett.*

Wilcock, W. S. D., Tolstoy, M., Waldhauser, F., Garcia, C., **Tan**, Y. J., Bohnenstiehl, D. R., Caplan-Auerbach, J., Dziak, R. P., Arnulf, A. F., and Mann, M. E. (2016), Seismic constraints on caldera dynamics from the 2015 Axial Seamount eruption, *Science*, 354(6318), 1395-1399.

Tan, Y. J., Tolstoy, M., Waldhauser, F., and Wilcock, W. S. D. (2016), Dynamics of a seafloor spreading episode at the East Pacific Rise, *Nature*, 540, 261-265.

Talks

Tan, Y. J., Tolstoy, M., Waldhauser, F., and Wilcock, W. S. D. (2017), Dynamics of a seafloor spreading episode at the East Pacific Rise, LDEO Geodynamics Seminar.

Tan, Y. J., Tolstoy, M., Waldhauser, F., and Wilcock, W. S. D. (2017), Dynamics of a seafloor spreading episode at the East Pacific Rise, AGU Chapman Conference.

Tan, Y. J., Tolstoy, M., Waldhauser, F., and Wilcock, W. S. D. (2016), Cross-correlation-based earthquake relocation and ambient noise imaging at Axial Seamount, AGU Fall Meeting.

Tan, Y. J., Tolstoy, M., Waldhauser, F., and Wilcock, W. S. D. (2015), A new perspective on the 9°50'N East Pacific Rise 2006 eruption, AGU Fall Meeting.

Posters

Tan, Y. J., Tolstoy, M., Waldhauser, F., and Wilcock, W. S. D. (2015), A new perspective on the 9°50'N East Pacific Rise 2006 eruption, OBSIP OBS Symposium.

Tan, Y. J. and Tolstoy, M. (2014), Tidal triggering of earthquakes in the Alaska-Aleutian subduction zone, AGU Fall Meeting.

Tan, Y. J. and Lin, J. (2013), Simulations of tsunamis triggered by the 1883 Krakatau volcanic eruption: Implications for tsunami hazards in the South China Sea, AGU Fall Meeting.

Teaching Experience

Columbia University

Led tutorial sessions, held office hours, and graded homework and exams for:

2016 V4949 Introduction to Seismology

2015 V1600 Earth Resources and Sustainable Development

Lafayette College

Assisted in setting up and running lab experiments for:

2013 GEOL200 Earth and Planetary Materials

Provided individual tutoring for:

2013 GEOL300 Earth Surface Processes

Service

Reviewer: Seismological Research Letters

2016 Led an exhibit about seafloor and subsurface mapping at the Lamont-Doherty Earth Observatory Open House

2015-2016 Attended weekly mentoring sessions for Columbia high-school summer interns
2013 Resident advisor of McKeen Residential Hall at Lafayette College

Skills

Computer

Python, MATLAB, R, Illustrator

Languages

Fluent in English, Mandarin Chinese, and Hokkien, proficient in Malay and Cantonese, and elementary in Swahili

Hobbies

Regular volleyball player and avid follower of NBA and EPL