Yun-Ze (Astor) Cheng

Research Assistant

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I am a Research Assistant in the Earth Structure Laboratory, Institute of Earth Sciences, Academia Sinica, Taiwan. I am currently working with **Prof. Hsin-Hua Huang**. My main project is to image the magma reservoirs in northern Taiwan via Joint inversion of surface wave measurements and receiver functions with Formosa Array

Research Interests

Seismic imaging the planetary interior | Seismic interferometry | Time-lapse environmental monitoring

Techniques and programming

- Receiver function, Noise cross-correlation function, & Multi-dataset joint inversion
- Primary used: Python & GMT; Others: C, Fortran, Matlab

Education

Institute of Oceanography of National Taiwan University (NTU)
MA in Marine Geology and Geophysics (MG&G) — *Sep. 2018–Jan. 2021*

- Thesis title: Crustal Discontinuity and Ambient Noise Sources beneath Dong-Sha Atoll from Buried Ocean-bottom Seismographs (Enligh)

  Advisors: Pei-Ying Patty Lin , National Taiwan Normal University (NTNU) and Chih-Chieh Don Su, IONTU

Department of Earth Science, National Central University (NCU), Taiwan
BA in Earth Science — *Sep. 2014–July 2018*

- Project: Receiver function imaging of the velocity discontinuities beneath Dong-Sah Island

  Advisors: Pei-Ying Patty Lin , Taiwan Ocean Research Institute (TORI)
- Project: Using Chebyshev polynomial to characterise lunar impact craters

  Advisors: Wenzhe Fa, Peiking University
- Project: Self-design a sandbox experiment to calculate the energy transformation of impact crater

  Advisors: Wing-Huen Ip, NCU

Scientific activities, and Publications

- Instructor, 2021 Taoyuan Astromical Carnival – Comet impact experiment (postpone due to COVID)
- Yun-Ze Astor Cheng*, Pei-Ying Patty Lin, and Chih-Chieh Su,“Seismic imaging beneath the Dong-Sha atoll with Buried Ocean-Bottom Seismographs” (in prep.)
- Yun-Ze Astor Cheng*, Pei-Ying Patty Lin, and Chih-Chieh Su, “Crustal Discontinuity and Ambient Noise Sources beneath Dong-Sha Atoll from Buried Ocean-bottom Seismographs”, Abstract S4-O-09, oral, 2020 Chinese Taipei Geophysical Society, Taipei, Taiwan
- Yun-Ze Astor Cheng*, Pei-Ying Patty Lin, and Chih-Chieh Su, “Detection of the Crustal Discontinuity and Ambient Noise Sources beneath Dongsha Atoll from Buried OBS Array”,Abstract T51E-0302, poster, 2019 AGU Fall Meeting, San Francisco, United States
- Yun-Ze Astor Cheng*, Pei-Ying Patty Lin, and Chih-Chieh Su, “Detection of the Crustal Discontinuity and Ambient Noise Sources beneath Dongsha Atoll from Buried OBS Array”, Abstract 14-OA-122, poster, 2019 Taiwan Geosciences Assembly, Taipei, Taiwan