Curriculum Vitae

personal details:

full name: Sean Kuanhsiang Chen 陳冠翔

address: 22F., No.259, Sec. 2, Sichuan Road,
Banchiao District, New Taipei City, Taiwan

phone: +886 939977163

birth date: 1987/08/15

email: sean80254@gmail.com

nationality: Republic of China

Experience

to 2024/01 Postdoc, Department of Earth Science, National Central University

to 2023/07 Postdoc, Department of Geosciences, National Taiwan University

to 2018/07 Postdoc, Institute of Earth Sciences, Academia Sinica

2011-2017 Ph.D., Department of Geosciences, National Taiwan University

2009-2011 M.S., Department of Geosciences, National Taiwan University

2005-2009 B.S., Department of Earth Sciences, National Central University

research interest

My research interest is to understand the internal deformation of the Earth's lithosphere using geodetic and seismologic joint observations. I am particularly interested in the universal issue of slow slip events in subduction zones. The fundamental question is why large earthquakes sometimes can be slow, not always fast, to release accumulated stress on the subduction plate interface. I focus on deepening the knowledge of fast to slow earthquakes in the offshore areas of northeastern Taiwan and finding potential slow slip events in Taiwan.

research field

earthquakes, crustal deformation, geodesy, active tectonics, statistical seismology

achievements/scholarship

2023 invited talk, Department of Geology and Geophysics, the University of Utah:
[title: slow slip events linked to large earthquakes in Taiwan]

2023 invited talk, 2023 slow-to-fast earthquake workshop:
[title: seismogenic potential of the southernmost Ryukyu subduction zone revealed by historical earthquakes and slow slip events]

2015 outstanding student paper awards in 2015 AGU fall meeting, earth science research promotion center (ESPRC)

2015 best student poster, annual meeting and symposium of geological society of Taiwan and Chinese Taipei Geophysical Society

2011 Dean's Award, master degree in College of Science, National Taiwan University

2011 excellent student poster, annual meeting and symposium of geological society of Taiwan and Chinese Taipei Geophysical Society

2011 excellent work, 22th Youth Forum, Department of Geosciences, National Taiwan University

2011 excellent teaching assistant, National Taiwan University

2009 The Phi Tau Phi Scholastic Honor Society of the Republic of China

2009 Dean's Award, College of Earth Sciences, National Central University

2009 Presidential Award, National Central University

2008 Outstanding Student Award, National Central University

2008 Presidential Award, National Central University

2007 Presidential Award, National Central University

2006 Presidential Award, National Central University

SCI Papers:

Chen, S.K., Chen, P.Y., Wu, Y.M., Chen, C.C., & Chan, C.H., 2023. Temporal variations of earthquake magnitude-frequency relation in the source area of $M \geq 6.0$ earthquakes: a systematic survey in Taiwan. Earth and Space Science, 10(12), e2023EA002927. https://doi.org/10.1029/2023EA002927

Chen S.K., Wu, Y.M., & Chan, Y.C., 2022b. The seismogenic potential of the southernmost Ryukyu subduction zone as revealed by historical earthquakes and slow slip events. Front. Earth Sci. 10:887182. https://doi.org/10.3389/feart.2022.887182

Chen, S.K., Wu, Y.M., & Chan, Y.C., 2022a. Slow slip events following the afterslip of the 2002 M_w 7.1 Hualien offshore earthquake, Taiwan. Earth Planets Space 74, 63 (2022). https://doi.org/10.1186/s40623-022-01629-y

Wu, Y.M., Mittal, H., Huang, T.C., Yang, B.M., Jan, J.C., Chen, S.K., 2019. Performance of a low-cost earthquake early warning system (P-Alert) during the 2018 M_w 6.4 Hualien (Taiwan) earthquake. Seis. Res. Lett. https://doi.org/10.1785/0220180170

Chen, S.K., Wu, Y.M., Chan, Y.C., 2018. Episodic slow slip events and overlying plate seismicity at the southernmost Ryukyu Trench. Geophys. Res. Lett. 45, 10,369-10,377. https://doi.org/10.1029/2018GL079740

Wu, Y.M., Chen, S.K., Huang, T.C., Huang, H.H., Chao, W.A., Koulakov, I., 2018. Relationship between earthquake b-values and crustal stresses in a young orogenic belt. Geophys. Res. Lett. 45 (4), 1832-1837. https://doi/10.1002/2017GL076694.

Chen, S.K., Wu, Y.M., Hsu, Y.J., Chan, Y.C., 2017. Current crustal deformation of the Taiwan orogen reassessed by cGPS strain-rate estimation and focal mechanism stress

inversion. Geophys. J. Int. 210 (1), 228-239, https://doi.org/10.1093/gji/ggx165.

Chen, S.K., Chan, Y.C., Hu, J.C., Kuo, L.C., 2014. Current crustal deformation at the junction of collision to subduction around the Hualien area, Taiwan. Tectonophysics 617, 58-78. https://doi.org/10.1016/j.tecto.2014.01.014.