Curriculum Vitae

Sanxi Ai 艾三喜

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Education

Sept. 2016- Dec. 2019 (expected), Ph.D. in Geophysics, University of Chinese Academy of Sciences, China

Sept. 2014- Aug. 2016, Master student in Geodesy, University of Chinese Academy of Sciences, China

Sept. 2010- Jun. 2014, B.S. in Geomatics Engineering, Hohai University, China

Research Interests

Seismic imaging of the Earth's interior

Lithospheric deformation and dynamics

Geophysical joint inversion (method and application)

Seismic signal processing

Academic Awards & Honors

2019, President Award, Chinese Academy of Sciences (**top 1%, highest honor for students at CAS**)

2018, Winning Prize, the Third Session of the East Lake Academic Forum, Wuhan Branch of Chinese Academy of Sciences

2017, Merit Student Award, University of Chinese Academy of Sciences

2016, Merit Student Award, University of Chinese Academy of Sciences

2016, Outstanding Student Paper Award, Annual Meeting of Chinese Geoscience Union

Peer-Reviewed/Submitted Journal Articles

Ai, S., Zheng, Y., He, L., Wang, S., & Riaz, M. S. (2019). Joint inversion of Rayleigh wave ellipticity and phase velocity for crustal structure in Taiwan. **submitted to GJI**.

Ai, S., Zheng, Y. (2019). Crustal deformations of the central North China Craton constrained by radial anisotropy. **submitted to JGR.**

Ai, S., Zheng, Y., & Xiong, C. (2019). Ambient noise tomography across the Taiwan Strait, Taiwan Island and southwestern Ryukyu Arc: Implications for subsurface slab interactions. **Tectonics**. https://doi.org/10.1029/2018TC005355

Ai, S., Zheng, Y., He, L., Song, M., (2019). Joint inversion of ambient noise and earthquake data in the Trans-North China Orogen: On-going lithospheric modification and its impact on the Cenozoic continental rifting. **Tectonophysics**. https://doi.org/10.1016/j.tecto.2019.05.003

Ai, S., Zheng, Y., Riaz, M. S., Song, M., Zeng, S., & Xie, Z. (2019). Seismic evidence on different rifting mechanisms in southern and northern segments of the Fenhe-Weihe Rift zone. **Journal of Geophysical Research: Solid Earth**. https://doi.org/10.1029/2018JB016476

Xiong, C., **Ai, S.#,** Xie, Z. & Xiong, X. (2019). Phase velocity maps of the Taiwan Island from tomography of cross terms of ambient noise cross-correlation tensors. **Acta Seismologica Sinica**. (in Chinese with English abstract)

Wang, X., Song, M., Zheng, Y., **Ai, S.** (2019). Velocity characteristics of Shanxi and adjacent area and its tectonics significance. **Seismology and Geology**. (in Chinese with English abstract)

Xiong, C., Xie, Z., Zheng, Y., Xiong, X., **Ai, S.**, & Xie, R. (2019). Rayleigh wave tomography in the crust and upper mantle of the Dabie-Tablu Orogenic zone. **Seismology and Geology**. (in Chinese with English abstract)

Articles in Preparation

Ai, S. et al. Joint inversion of Rayleigh wave ellipicity, phase velocity and receiver functions for high-resolution crustal model of the SE Tibet.

Talks

Zheng, Y. & **Ai, S.**, Subduction polarity flipping beneath Taiwan and its implications for mountain building process. South China Sea Institute of Oceanology, Chinese Academy of Sciences, Guangzhou, China, Jan. 25, 2019. (**invited**)

Ai, S. & Zheng, Y., Limited extension of the Central NCC constrained by radial anisotropy. South China Sea Institute of Oceanology, Chinese Academy of Sciences, Guangzhou, China, Jan. 25, 2019. (**invited**)

Ai, S., Crust and uppermost mantle structure beneath the Trans-North China Orogen from joint inversion of ambient noise and earthquake data. 2018 Annual Meeting of Chinese Geoscience Union (CGU), Beijing, China, Oct. 22, 2018.

Ai, S., Possible different rifting mechanisms between south and north parts of the Fenhe-Weihe Rift zone revealed by shear velocity structures. 2017 Annual Meeting of Chinese Geoscience Union (CGU), Beijing, China, Oct. 18, 2017.

Ai, S., High-resolution crustal structure of the Shanxi Rift from joint inversion of ambient noise and receiver functions. Shanxi Earthquake Administration, Taiyuan, China, Sep. 12, 2017. (**invited**)

Ai, S., Ambient noise tomography across the Taiwan Strait. 2016 Annual Meeting of Chinese Geoscience Union (CGU), Beijing, China, Oct. 17, 2016. (**Outstanding Student Paper Award**)

Skills

Computer Skills: Shell, Python, Fortran, C/C++, Adobe Illustrator, ArcGIS

Seismological Tools: SAC, GMT, SOD, ObsPy, CPS

In addition, I'm opening to all computation and data processing science and skills, such as machine learning.

(updated at July 5, 2019)