XIAOBO HE, PHD

A Seismologist: Listening to the Earth

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Research Associate Professor of Seismology & Tectonics
Marine Science & Technology College, Zhejiang Ocean University
Personal Website: https://seismocean.com

Date Printed: September 25, 2026

EDUCATION

University of Chinese Academy of Sciences — **2002 – 2008**
Graduate student in Solid Earth Physics
Advisor: Huilan Zhou

China University of Mining & Technology — **1998 – 2002**
Undergraduate student in Exploration Geophysics
Mentor: Ruofei Cui

APPOINTMENTS

Research Associate Professor — **2023 – Present**
Marine Science and Tech. College, Zhejiang Ocean University

Research Assistant Professor — **2020 – 2023**
Marine Science and Tech. College, Zhejiang Ocean University

Lecturer — **2014 – 2018**
Department of Marine Sciences, Zhejiang University

Postdoctoral Fellow — **2013 – 2014**
Department of Earth System Sciences, Yonsei University
Mentor: Tae-Kyung Hong

Postdoctoral Associate — **2010 – 2012**
Department of Geology & Geophysics, Yale University
Mentor: Maureen D. Long

Postdoctoral Fellow — **2008 – 2010**
Department of Earth System Sciences, Yonsei University
Mentor: Tae-Kyung Hong

Visiting Scholar — **Fall 2006**
Department of Earth Science, Rice University
Mentor: Fenglin Niu

RESEARCH INTERESTS

① Seismic structure from the Crust to the Core
② T-wave observation and analysis
③ Seismic anisotropy and mantle dynamics
④ Mechanisms of intermediate/deep focus earthquakes
⑤ Water cycle in the deep mantle
⑥ Intraplate magmatism & deformation/seismicity
⑦ Flat-slab subduction dynamics
⑧ Continental subduction dynamics
⑨ Tectonics in response to seamount subduction

HONORS & AWARDS

Excellent Supervisor for Graduate Students, Zhejiang Ocean University	**2025**
Excellent Mentor for Freshmen, Zhejiang University	**2017**
Excellent Mentor for Graduate Students, Zhejiang University	**2017**
Teaching Award, Zhejiang University	**2016**

ACADEMIC SOCIETIES & ACTIVITIES

Committee Member: Tectonophysics Committee, SSC	**2026 – 2031**
SSC = Seismological Society of China	
Committee Member: SEDI China Committee, IUGG	**2025 – 2028**
SEDI = Study of the Earth's Deep Interior,	
a Union Commission of Intl. Union of Geodesy and GeophysicsI (IUGG)	
Committee Member: Deep-Sea Science Sub-Committee, CSOL	**2025 – 2030**
CSOL = Chinese Society for Oceanology and Limnology	
Member: Chinese Geophysical Society,	**2005 – Present**
Seismological Society of China,	**2025 – Present**
Chinese Society for Oceanology and Limnology	**2025 – Present**
Reviewer: *G-cubed, Journal of Asian Earth Sciences,*	**2009 – Present**
Geosciences Journal, Seismological Research Letters,	
Earth and Planetary Physics, Geophysical Journal International,	
Terra Nova, Acta Geophysica, Earthquake Science,	
Tectonophysics, Acta Seismologica Sinica,	
Science China Earth Sciences, Earthquake Research In China,	
Scientific Reports, Journal of Earth Science,	
Chinese Journal of Geophysics, Frontiers in Earth Science,	
Journal of Ocean University of China	

STUDENT AND POSTDOCTORAL SUPERVISION

I. Graduate Advisees

Current graduate advisees:

- ◇ GABRIEL LEONARD MMASSY (M.S.) **ZJOU**
- ◇ Yihong Liao (M.S.) **ZJOU**
- ◇ Chen Chen (M.S.) **ZJOU**
- ◇ Jinjin Yang (M.S.) **ZJOU**
- ◇ Chenyang Zhou (M.S.) **ZJOU**
- ◇ Yicheng He (M.S.) **ZJOU**

Past graduate advisees:

- ◇ Qiuyue Jin (M.S. 2026) **ZJOU**
- ◇ Linying Xia (M.S. 2026) **ZJOU**
- ◇ Qin Zhou (M.S. 2025) **ZJOU**
- ◇ Mingli He (M.S. 2025) **ZJOU**
- ◇ Bingxin Zhou (M.S. 2024) **ZJOU**
- ◇ Yixian Zheng (Ph.D. 2021) **ZJU**
- ◇ Liming Wang (M.S. 2020) **ZJU**
- ◇ Lingling Wang (M.S. 2020) **ZJU**
- ◇ Juntao Tao (M.S. 2020) **ZJU**
- ◇ Jinfeng Hu (M.S. 2019) **ZJU**
- ◇ Yu Zou (M.S. 2018) **ZJU**
- ◇ Zhongtao Yang (M.S. 2016) **ZJU**

II. Undergraduate Research Advisees

Past undergraduate advisees:

- ○ Guohao Wang (ZJOU College'22) – essay advisor **2025 – 2026**
- ○ Tangyi Ou (ZJOU College'22) – essay advisor **2025 – 2026**
- ○ Yuyan Wang (ZJOU College'22) – research/essay advisor **2023 – 2026**
- ○ Hangqi Zhu (ZJOU College'21) – essay advisor **2024 – 2025**
- ○ Zhenyi Ma (ZJOU College'21) – essay advisor **2024 – 2025**
- ○ Wentao Jiang (ZJOU College'21) – essay advisor **2024 – 2025**
- ○ Zhoujie Xia (ZJOU College'21) – essay advisor **2024 – 2025**
- ○ Zhenyang Guo (ZJOU College'21) – research/essay advisor **2022 – 2025**
- ○ Kedi Dong (ZJOU College'21) – research advisor **2023 – 2024**
- ○ Huosong He (ZJOU College'20) – research advisor **2021 – 2024**
- ○ Lingdong Zhang (ZJOU College'20) – research/essay advisor **2021 – 2024**
- ○ Haodong Tong (ZJOU College'20) – essay advisor **2023 – 2024**
- ○ Junchi Hong (ZJOU College'20) – essay advisor **2023 – 2024**
- ○ Qi Cen (ZJOU College'20) – essay advisor **2023 – 2024**
- ○ Hongchang You (ZJOU College'19) – essay advisor **2022 – 2023**
- ○ Hao Xu (ZJOU College'19) – essay advisor **2022 – 2023**
- ○ Chen Chen (ZJOU College'19) – essay advisor **2022 – 2023**
- ○ Lingbo Zhao (ZJOU College'20) – research advisor **2021 – 2022**

- Jinjie Chen (ZJOU College'20) — research advisor **2021 — 2022**
- Yi Lei (ZJOU College'18) — research/essay advisor **2020 — 2022**
- Youyou Guo (ZJOU College'18) — essay advisor **2021 — 2022**
- Caicai Pan (ZJOU College'18) — essay advisor **2021 — 2022**
- Weihuan He (CDUT College'18) — essay advisor **2021 — 2022**
- Jinfeng Luo (ZJOU College'17) — essay advisor **2020 — 2021**
- Sifan Wu (ZJU College'16) — SRTP advisor **2018 — 2019**
- Zhengyu Li (ZJU College'16) — SRTP advisor **2018 — 2019**
- Yutong Tang (ZJU College'16) — SRTP advisor **2018 — 2019**
- Yiting Wang (ZJU College'16) — SRTP advisor **2018 — 2019**
- Shaokang Chen (ZJU College'16) — SRTP advisor **2018 — 2019**
- Chenyang Li (ZJU College'16) — SRTP advisor **2018 — 2019**
- Quan Shi (ZJU College'15) — essay advisor **2017 — 2019**
- Haoyue Zuo (ZJU College'15) — SRTP/research advisor **2017 — 2018**
- Yihui Chen (Fuzhou Univ. College'14) — essay advisor **2017 — 2018**
- Jingyuan Wan (ZJU College'14) — essay advisor **2017 — 2018**
- Yutong Liu (ZJU College'14) — essay advisor **2017 — 2018**
- Yiran Huang (ZJU College'14) — essay advisor **2017 — 2018**
- Hao Wu (ZJU College'15) — SRTP advisor **2017 — 2018**
- Haoyu Zhang (ZJU College'14) — SRTP advisor **2016 — 2017**
- Xuanyi Li (ZJU College'14) — SRTP advisor **2016 — 2017**
- Qian Wu (ZJU College'14) — SRTP advisor **2016 — 2017**
- Yujia Zhang (ZJU College'13) — SRTP/essay advisor **2015 — 2017**
- Wenjing Wang (ZJU College'13) — research advisor **2015 — 2017**
- Zebin Cao (ZJU College'13) — research/essay advisor **2015 — 2017**
- Hangqi He (ZJU College'13) — SRTP advisor **2015 — 2016**
- Xin Zheng (ZJU College'13) — SRTP advisor **2015 — 2016**

PUBLICATIONS

(⊙ *denotes undergraduate advisee;* ⊖ *denotes graduate advisee;*
⊕ *denotes postdoctoral advisee;* ☺ *denotes corresponding author*)

[42] Ivan, M., Petrescu, L., **He, X.**, & Wang, Y. ⟨2026⟩ PKIKPPKIKP vs PKiKPPKiKP: A New Pair of Seismic Phases for Mapping the Earth's Inner Core, *Seismological Research Letters*, In Press.

[41] Jin, Q.(⊖), & **He, X.** ⟨2026⟩ Seismic Evidence Linking Dehydration to the Low-Velocity Layer Above the 410 km Discontinuity, *Earth and Planetary Physics*, In Press.

[40] **He, X.**, & Xia, L.(⊖) ⟨2026⟩ Seismic Evidence for a Thermal Origin of the Perm Anomaly Beneath Eurasia, *CT Theory and Applications*, In Press.

[39] Wu, Y., Tian, X., Liang, X., Li, Y., & **He, X.** ⟨2026⟩ Seismic Evidence for Hydration of the Mantle Transition Zone beneath Tibet and Its Implications for Water-rich Mantle Upwelling, *Journal of Geophysical Research: Solid Earth*, https://doi.org/10.1029/2026JB033948.

[38] Cao, L.(☺), **He, X.**(☺), Zhao, L., Huang, B.-S., Hao, T., Zhao, M., Qiu, X., He, E., Wan, K., Zhang, Y., & Yuan, H. ⟨2025⟩ Frequency-dependent anisotropy and upper plate deformation due to seamount subduction in northern Luzon, *Geophysical Research Letters*, https://doi.org/10.1029/2025GL119325.

[37] **He, X.**, He, M.(⊖), Wang, X., Zhao, M., & Dong, M. ⟨2025⟩ Subduction Initiation and Mafic Intrusions: Rethinking the South China Sea–Luzon Connection, *CT Theory and Applications*, 34(5): 1–4. https://doi.org/10.15953/j.ctta.2025.176.

[36] **He, X.**, He, M.(⊖), Li, Y., Hu, J., Pan, F., Wang, Z., & Lei, J. ⟨2025⟩ Changbaishan Volcanism: Is Seamount Subduction the Missing Piece?, *Journal of Earth Science*, https://doi.org/10.1007/s12583-025-0181-x.

[35] Pan, F., Wu, X., Wang, C., Zhang, Y., Yang, Y., **He, X.**, Jin, C., Zhou, L., Zhang, H., He, H., & Zhang, J. ⟨2025⟩ Iron disproportionation in peridotite fragments from the mantle transition zone, *Nature Communications*, https://doi.org/10.1038/s41467-025-60566-y.

[34] Wang, X., Zhao, M., **He, X.**, Zhang, J., Cheng, J. Mao, H. ⟨2025⟩ Seismic imaging revealing the processes from subduction to arc-continental collision in the northeastern South China Sea, *Tectonophysics*, https://doi.org/10.1016/j.tecto.2025.230684.

[33] Xiong, C., Deng, Y., Ye, X., Wang, L., Zhang, Y., Lv, Z., Wang, X., Gong, X., & **He, X.** ⟨2025⟩ Quaternary Sediment Thicknesses, Paleochannels, and Hazard Assessment Revealed by a 6200-Station Array in the Guangdong–Hong Kong–Macao Greater Bay Area, South China, *Bulletin of the Seismological Society of America*, https://doi.org/10.1785/0120240214.

[32] **He, X.**, & Zhou, Q.(⊖) ⟨2024⟩ Explicit role of seamount subduction in upper plate deformation as exemplified in the Ryukyu subduction zone, *Journal of Asian Earth Sciences*, https://doi.org/10.1016/j.jseaes.2024.106354.

[31] Cao, L.(☺), **He, X.**(☺), Yuan H., Zhao, M., Qiu, X., & Savage, M. ⟨2024⟩ Upper-mantle seismic anisotropy in the southwestern North Island, New Zealand: Implications for regional upper-mantle and slab deformation, *Tectonophysics*, https://doi.org/10.1016/j.tecto.2024.230455.

[30] Cao, L.(☺), Lü, C.(☺), **He, X.**(☺), Rawlinson, N., Hao, T., Widiyantoro, S., Supendi, P., Zhao, L., Yuan, H., Zhao, M., Qiu, X., Rafie, M. T., Alfian, A., & Sahara, D. P. ⟨2024⟩ Mantle flow induced by the interplay of downgoing slabs revealed by seismic anisotropy beneath the Sula Block in eastern Indonesia, *Journal of Geophysical Research: Solid Earth*, https://doi.org/10.1029/2023JB028110.

[29] Zhou, B.(⊖), & **He, X.**(☺) ⟨2024⟩ No basalt accumulation and segregation atop the 660-km discontinuity beneath the Sea of Okhotsk, *Earth and Planetary Physics*, https://doi.org/10.26464/epp2024034.

[28] Li, X., **He, X.**, Xu, S., Li, H., & Jiang, G. ⟨2024⟩ A flat lithosphere-asthenosphere boundary (~60 km depth) in central Eastern China: implications for lithospheric destruction and evolution, *Journal of Asian Earth Sciences*, https://doi.org/10.1016/j.jseaes.2024.106035.

The 2nd paper[27] wrote with undergraduate students.

[27] Pan, C.(⊙), & **He, X.**(☺) ⟨2023⟩ Subducting passive continental margins with crustal (ultra)mafic intrusions: An underappreciated mechanism for recycling water back into the mantle, *Earth and Planetary Physics*, http://doi.org/10.26464/epp2023074.

[26] Pan, F.-B.(☺), Zhang, H.(☺), **He, X.**(☺), Harris, N., Dai, H.-K., Xiong, Q., Luo, B-J., Liu, D., Kusky, T. & Sadiq, I. ⟨2023⟩ Lithosphere tearing and foundering during continental subduction: insights from Oligocene-Miocene magmatism in southern Tibet, *Geological Society of America Bulletin*, https://doi.org/10.1130/B36746.1.

[25] Wang, X., Cao, L., Zhao, M., Cheng, J., & **He, X.** ⟨2023⟩ What conditions promote atypical subduction: Insights from the Mussau Trench, the Hjort Trench, and the Gagua Ridge, *Gondwana Research*, https://doi.org/10.1016/j.gr.2022.10.014.

[24] Li, J., Chen, S., **He, X.**, Wang, W., & Yang, F. ⟨2022⟩ Middle-lower mantle scatterers: Detection methods, Research progress and prospect, *Reviews of Geophysics and Planetary Physics*, doi: 10.19975/j.dqyxx.2022-039.

[23] **He, X.** ⟨2022⟩ Small-scale heterogeneity and seismic anisotropy in the mid-mantle: oceanic crust versus meta-stable olivine, *Journal of Earth Science*, doi: 10.1007/s12583-022-1700-7.

[22] **He, X.**, Tao, J.(⊖), Cao, Y., Pan, F.-B., He, E., Cao, L., & Zheng, Y.(⊖) ⟨2022⟩ No seamount subduction, no magmatic arc? *Earth and Planetary Physics*, doi: 10.26464/epp2022031.

[21] Pan, F.-B., Jin, C., **He, X.**, Tao, L., & Jia, B.-J. ⟨2021⟩ A plate-mantle convection system in West Pacific revealed by Tertiary ultramafic-mafic volcanic rocks in Southeast China, *Earth and Space Science*, doi: 10.1029/2020EA001324.

[20] Cao, L.(☺), & **He, X.**(☺), Zhao, L., Lü, C., Hao, T., Zhao, M., & Qiu, X. ⟨2021⟩ Mantle flow patterns beneath the junction of multiple subduction systems between the Pacific and Tethys domains, SE Asia: constraints from SKS-wave splitting measurements, *Geochemistry, Geophysics, Geosystems*, doi: 10.1029/2021GC009700.

[19] Wang, L.(⊖), & **He, X.**(☺) ⟨2020⟩ Seismic anisotropy in the Java-Banda and Philippine subduction zones and its implications for the mantle flow system beneath the Sunda Plate, *Geochemistry, Geophysics, Geosystems*, doi: 10.1029/2019GC008658.

[18] Wang, L.(⊖), & **He, X.**(☺) ⟨2020⟩ Sharpness of the paired 660-km discontinuity beneath the Izu-Bonin area, *Earth and Planetary Physics*, doi: 10.26464/epp2020067.

[17] Tao, J.(⊖), Hu, J.(⊖), Jin, C., & **He, X.**(☺) ⟨2020⟩ Seismic evidence links the subducted Mongol-Okhotsk slab to deformation in D" near the northeastern margin of the Perm Anomaly, *Tectonophysics*, doi: 10.1016/j.tecto.2019.228297.

[16] Tao, L., Pan, F.-B., Liu, R., Jin, C., Jia, B.-J., & **He, X.** ⟨2019⟩ Petrogenesis of the Cretaceous granitoids in Zhejiang, northeast South China Block and their implications for episodic retreat and roll-back of the Paleo-Pacific Plate, *Geological Society of America Bulletin*, doi: 10.1130/B35426.1.

[15] Hu, J.(⊖), & **He, X.**(☺) ⟨2019⟩ Seismic evidence for a paleo-slab in the D" layer residing adjacent to the southeastern edge of the Perm Anomaly, *Geochemistry, Geophysics, Geosystems*, doi: 10.1029/2019GC008195.

[14] Zou, Y.(⊖), Tian, X., Yu, Y., Pan, F.-B., Wang, L.(⊖), & **He, X.**(☺) ⟨2019⟩ Seismic evidence for the existence of an entrained mantle flow coupling the northward advancing Indian plate under Tibet, *Earth and Planetary Physics*, 3(1): 1–7, http://doi.org/10.26464/epp2019007.

[13] Pan, F.-B., Jin, C., Jia, B.-J., Liu, R., **He, X.**, Gao, Z., Tao, L., Zhou, X.-C., & Zhang, L.-Q. ⟨2018⟩ A Late Mesozoic short-lived shift from fluid-dominated to sediment-dominated mantle metasomatism in NW Zhejiang, NE South China Block and its tectonic implications, *Lithos*, doi: 10.1016/j.lithos.2018.04.019.

[12] Pan, F.-B., Liu, R., Jin, C., Jia, B.-J., **He, X.**, Gao, Z., Tao, L., Zhou, X.-C., & Zhang, L.-Q. ⟨2018⟩ Petrogenesis of Early Cretaceous granitoids from southwest Zhejiang, NE South China Block and its geodynamic implication, *Lithos*, doi: 10.1016/j.lithos.2018.03.011.

[11] **He, X.**, & Zheng, Y.(⊖) ⟨2018⟩ S-to-P conversions from mid-mantle slow scatterers in slab regions: observations of deep/stagnated oceanic crust? *Pure and Applied Geophysics*, doi: 10.1007/s00024-017-1763-z.

The 1st paper[10] wrote with undergraduate students.

[10] He, H.(⊙), Pan, F.-B.(⊕), Chen, H., Zhang Y.(⊙), Zheng, X.(⊙), & **He, X.**(☺) ⟨2017⟩ Subducting continental lower crust and crustal thickness variations in the intermediate seismic zone of Pamir-Hindu Kush inferred from Moho underside reflection pmP, *Tectonophysics*, 718(30): 132–139, doi: 10.1016/j.tecto.2017.04.004.

[9] Ivan, M., & **He, X.** ⟨2017⟩ Uppermost inner core heterogeneity from differential travel times of PKIKP vs. PKP-Bdiff and PKP-Cdiff phases, *Pure and Applied Geophysics*, 174: 249–259, doi: 10.1007/s00024-016-1391-z.

The 1st paper[8] wrote with a graduate student of my group (master-course).

[8] Yang, Z.(⊖), & **He, X.**(☺) ⟨2015⟩ Oceanic crust in the mid-mantle beneath West-Central Pacific subduction zones: Evidence from S to P converted waveforms, *Geophysical Journal International*, 203(1): 541–547, doi: 10.1093/gji/ggv314.

Four papers[4-7] wrote with my postdoctoral advisors.

[7] Ford, H. A., Long, M. D., **He, X.**, & Lynner, C. ⟨2015⟩ Lowermost mantle flow at the eastern edge of the African Large Low Shear Velocity Province, *Earth and Planetary Science Letters*, 420: 12–22, doi: 10.1016/j.epsl.2015.03.029.

[6] Choi, H., Hong, T.-K., **He, X.**, & Baag, C.-E. ⟨2012⟩ Seismic evidence for reverse activation of a paleo-rifting system in the East Sea (Sea of Japan), *Tectonophysics*, 572–573, 123–133, doi: 10.1016/j.tecto.2011.12.023.

[5] **He, X.**, & Long, M. D. ⟨2011⟩ Lowermost mantle anisotropy beneath the northwestern Pacific: Evidence from PcS, ScS, SKS, and SKKS phases, *Geochemistry, Geophysics, Geosystems*, doi: 10.1029/2011GC003779.

[4] **He, X.**, & Hong, T.-K. ⟨2010⟩ Evidence for strong ground motion by waves refracted from the Conrad discontinuity, *Bulletin of the Seismological Society of America*, 100(3): 1370–1374, doi: 10.1785/0120090159.

Three papers[1-3] wrote with my doctoral advisors.

[3] **He, X.**, Zhou, H., Ma, Y., & Niu, F. ⟨2008⟩ Synthetic study on SS waveform splitting and complication, *Acta Seismologica Sinica*, 30(1): 35–45, doi: 10.1007/s11589-008-0035-5.

[2] **He, X.**, & Zhou, H. ⟨2005⟩ The low degree spherical harmonic analysis on the large scale topographies of the Moho and the Upper Mantle discontinuities, *Journal of the Graduate School of the Chinese Academy of Sciences*, 22(3): 315–321.

[1] **He, X.**, & Zhou, H. ⟨2005⟩ Arrival time measurements of first arrival phases P and PKIKP using the method of fixed scale wavelet transformation ratio, *Acta Seismologica Sinica*, 18(4): 410–418, doi: 10.1007/s11589-005-0018-8.

PRESENTATIONS

2025 Xia, L., & **He, X.** Lateral Heterogeneity of Seismic Wave Velocity Structure at the Bottom of the Mantle beneath the Northwest Pacific, *CGU*, Chengdu, Oct. 18–22, 2025 (oral presentation).

2025 Jin, Q., & **He, X.** Direct seismic evidence for low-velocity layer atop the 410 km discontinuity attributed to slab dehydration, *CGU*, Chengdu, Oct. 18—22, 2025 (poster presentation).

2024 He, M., & **He, X.** Seismic evidence for widespread meta-stable olivine existing in the downgoing slabs, *CGU*, Xiamen, Oct. 20—23, 2024 (oral presentation).

2023 Zhou, B., & **He, X.** The fine seismic structure across the 660-km discontinuity underneath the sea of Okhotsk, *CGU*, Zhuhai, Oct. 14—17, 2023 (oral presentation).

2020 **He, X.** Seismic evidence for meta-stable olivine existing in the northwest Pacific slab, *CGU*, Chongqing, Oct. 17—21, 2020 (oral presentation).

2018 **He, X.** A sub-horizontal ultra-low-veloicty-layer detected in the northern Peruvian flat slab, *CGU*, Beijing, Oct. 20—24, 2018 (oral presentation).

2018 **He, X.** Uppermost Inner Core Heterogeneity and Attenuation from Observations of PKP-Bdiff and PKP-Cdiff Phases, *CGU*, Beijing, Oct. 20—24, 2018 (oral presentation).

2018 **He, X.** Some understanding of seismic characteristics on the 410- and 660-km discontinuties, *CGU*, Beijing, Oct. 20—24, 2018 (oral presentation).

2017 **He, X.** Seismic Observations link the Subducted Mongol-Okhotsk Slab to deformation in D" near the Perm Anomaly, *CGU*, Beijing, Oct. 15—18, 2017 (oral presentation).

2017 **He, X.** Subducting continental lower crust and crustal thickness variations in the intermediate seismic zone of Pamir—Hindu Kush, *CGU*, Beijing, Oct. 15—18, 2017 (oral presentation).

2017 Zou, Y., & **He, X.** Characteristics of 410-km and 660-km discontinuities: evidences from P'P' precursors, *CGU*, Beijing, Oct. 15—18, 2017 (oral presentation).

2017 **He, X.** S-to-P conversions from mid-mantle slow scatterers in slab regions: observations of deep/stagnated oceanic crust ? *JpGU-AGU*, May, 20—25, 2017 (poster presentation).

2016 **He, X.** SS waveform splitting in relation to crustal thickness: a synthetic analysis, *SEISMIX*, Aviemore, May, 15—20, 2016 (poster presentation).

2015 **He, X.** Lowermost mantle flow at the eastern edge of the African Large Low Shear Velocity Province, *CGU*, Beijing, Oct. 11—14, 2015 (oral presentation).

2013 **He, X.**, & Hong., T.-K. Observation of prominent S-to-P converted phases and depth-dependent seismic anisotropy in the western Pacific subduction zone, *AGU Fall Meeting*, San Francisco, Dec. 9—13, 2013 (poster presentation).

2011 **He, X.**, & Long, M. D. Lowermost mantle anisotropy beneath the northwestern Pacific: Evidence from PcS, ScS, SKS, and SKKS phases, *AGU Fall Meeting*, San Francisco, Dec. 5—9, 2011 (poster presentation).

2010 Hong, T.-K., **He, X.**, & Choi, H. Seismic Features of Tectonic Structures in the Far-east Asia around the Korean Peninsula, *Asia Oceania Geosciences Society (AOGS) 7th Annual Meeting*, Hyderabad International Convention Centre, India, July, 5—9, 2010 (oral presentation).

2010 **He, X.**, & Hong, T.-K. Strong Ground Motions of Conrad-refracted and Moho-reflected Waves, *Western Pacific Geophysics Meeting*, Taipei, Taiwan, June, 22—25, 2010 (poster presentation).

2010 **He, X.**, & Hong, T.-K. Upper Mantle Shear-wave Anisotropy beneath the Korean Peninsula, *Western Pacific Geophysics Meeting*, Taipei, Taiwan, June, 22—25, 2010 (poster presentation).

2010 Hong, T.-K., **He X.**, & Choi, H. Seismic and tectonic characteristics of the continental margin around the Korean Peninsula, *Western Pacific Geophysics Meeting*, Taipei, Taiwan, June, 22—25, 2010 (oral presentation).

2009 **He, X.**, & Hong, T.-K. S-wave coda attenuation and crustal shear wave anisotropy in the Korean Peninsula, *AGU Fall Meeting*, San Francisco, Dec. 14—18, 2009 (poster presentation).

2009 Chi, D., **He, X.**, & Hong, T.-K. Unraveling the Conrad discontinuity in the crust of a paleo-collison zone, *AGU Fall Meeting*, San Francisco, Dec. 14—18, 2009 (poster presentation).

2009 Lee, K., **He, X.**, & Hong, T.-K. Development of a Pn body-wave magnitude scale for the Korean Peninsula, *Conference of the Association of Korea Geoscience Societies*, Jeju, Korea, Oct. 29—30, 2009 (poster presentation).

2009 **He, X.**, & Hong, T.-K. Seismic signatures of the continental crust in the Korea Peninsula, *Conference of the Association of Korea Geoscience Societies*, Jeju, Korea, Oct. 29—30, 2009 (oral presentation).

2009 Hong, T.-K. & **He, X.** Seismic feature of the continental margin around Korea and Japan, *Asia Oceania Geosciences Society (AOGS) Annual Meeting*, SUNTEC, Singapore, Aug. 11—15, 2009 (oral presentation).

2009 **He, X.** & Hong, T.-K. Evidence for strong ground motion by waves refracted from the Conrad discontinuity, *Asia Oceania Geosciences Society (AOGS) 6th Annual Meeting*, SUNTEC, Singapore, Aug. 11—15, 2009 (poster presentation).

2009 **He, X.** & Hong, T.-K. Evidence for strong ground motion by waves refracted from the Conrad discontinuity, *From Core to Crust: Towards an Integrated Vision of Earth's Interior*, Trieste, Italy, Jul. 20—24, 2009 (poster presentation).

2008 **He, X.**, Zhou, H., Ma, Y., & Niu, F. Synthetic study on the SS waveform splitting and complication, *The 7th General Assembly of Asian Seismological Commission and Seismological Society of Japan, Tsukuba*, Japan, Nov. 24—27, 2008 (poster presentation).

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