

# Minkyung SON, Ph.D.

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Research focus: Earthquake source processes, seismicity, and related geophysical observations.

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## Education

Ph.D. in Geophysics, Interdisciplinary Program in Computational Science and Technology, Seoul National University, Aug 2016.

Dissertation: Relocation of clustered seismic events on the Korean Peninsula using the double-difference method.

M.S. in Geophysics, Interdisciplinary Program in Computational Science and Technology, Seoul National University, Feb 2011.

Thesis: Time-domain waveform inversion using filtering techniques.

B.S. in Energy Resources Engineering, Seoul National University, Feb 2009.

Exchange: Osaka University, Apr – Aug 2008 (all courses in Japanese; fully funded).

## Professional Experience

Principal Researcher  
Korea Institute of Geoscience and Mineral Resources (KIGAM)  
Jan 2025 – Present

Visiting Scholar  
Berkeley Seismological Laboratory  
University of California, Berkeley, USA  
Jun – Sep 2025

Senior Researcher  
Korea Institute of Geoscience and Mineral Resources (KIGAM)  
Jan 2017 – Dec 2024

Maternity & Parental Leave  
Sep 2021 – Apr 2022

Maternity & Parental Leave  
May 2017 – Aug 2018

Researcher

Korea Institute of Geoscience and Mineral Resources (KIGAM)  
Dec 2010 – Dec 2016

### Selected Publications

**Son, M.**, and E. J. Chaves (2025). Investigating corner-frequency uncertainties: Insights from six earthquakes (Mw 3.2–3.8) in Ridgecrest, California, and the Korean Peninsula. *Bulletin of the Seismological Society of America*, 115, 1189–1121.

<https://doi.org/10.1785/0120240149>

**Son, M.**, C. S. Cho, J.-H. Choi, J.-S. Jeon, and Y.-K. Park (2021). Spatiotemporal patterns of the 2020 Haenam earthquake sequence, South Korea: lineament and migration implying fluid-driven earthquake swarm. *Geosciences Journal*, 25, 19–31.

<https://doi.org/10.1007/s12303-020-0043-6>

**Son, M.**, C. S. Cho, H. K. Lee, M. Han, J. S. Shin, K. Kim, and S. Kim (2020). Partitioned fault movement and aftershock triggering: evidence for fault interactions during the 2017 Mw 5.4 Pohang earthquake, South Korea. *Journal of Geophysical Research: Solid Earth*, 125, e2020JB020005. <https://doi.org/10.1029/2020JB020005>

**Son, M.**, C. S. Cho, J. S. Shin, H.-M. Rhee, and D.-H. Sheen (2018). Spatiotemporal distribution of events during the first three months of the 2016 Gyeongju, Korea, earthquake sequence. *Bulletin of the Seismological Society of America*, 108, 210–217.

<https://doi.org/10.1785/0120170107>

**Son, M.**, J. S. Shin, G. Kim, and C. S. Cho (2015). Epicenter relocation of two 2013 earthquake sequences in the Yellow Sea, Korea, using travel-time double-differences and Lg-wave cross-correlation. *Geosciences Journal*, 19, 295–303. <https://doi.org/10.1007/s12303-014-0038-2>

**Son, M.**, Y. Kim, C. Shin, and D.-J. Min (2013). Time-domain full waveform inversion using a time-window and Huber function norm. *Journal of Seismic Exploration*, 22, 311–338.

### Selected Presentations

**Son, M.** and E. J. Chaves (2024). Understanding corner frequency variations: A study of six earthquakes in Ridgecrest, CA, and Korea (Mw 3.2–3.8). AGU Fall Meeting, Washington, DC (invited).

**Son, M.**, Y. Kim, and C. Shin (2010). A time-domain waveform inversion using filtering technique. SEG Annual Meeting, Denver, CO.