

Peer reviewed journal publications – Updated Jan. 13, 2025

(† indicates student or post-doc mentored by Dr. Koper)

109. †Hutchings, S. J., K. D. Koper, R. Burlacu, Q. Zeng, F.-C. Lin, and G. Zandt (2025). Upper mantle earthquakes along the edge of the Wyoming craton, *Geophys. Res. Lett.*, under review.
108. †Hutchings, S. J., A. Pitarka, and K. D. Koper (2025). Simulating broadband (0–3 Hz) ground motion for the 2020 M_w 5.7 Magna, Utah, earthquake using the Wasatch Front Community Velocity Model with stochastic velocity perturbations and topography, *Seism. Res. Lett.*, under review.
107. †Hutchings, S. J., A. Pitarka, K. D. Koper, R. Burlacu, and J. R. †Voyles (2025). Simulating high-frequency seismograms in realistic Earth models to better understand source discrimination based on differential magnitudes ($M_L - M_C$), *Seism. Res. Lett.*, under review.
106. †Armstrong, A. D., B. Baker, and K. D. Koper (2025). Feature-based magnitude estimates for small earthquakes in the Yellowstone region, *Bull. Seism. Soc. Am.*, under review.
105. Vidale, J. E., W. Wang, R. Wang, G. †Pang, and K. D. Koper (2025). Annual-scale variability in both the rotation rate and near-surface of Earth's inner core, *Nat. Geosci.*, in press.
104. Koper, K. D., R. Burlacu, A. D. †Armstrong, R. B. Hermann (2024), Classifying small earthquakes, explosions and collapses in the western United States using physics-based features and machine learning, *Geophys. J. Inter.*, 239, 1257–1270.
103. Wang, W., J. E. Vidale, G. †Pang, K. D. Koper, and R. Wang (2024). Inner core backtracking by seismic waveform change reversals, *Nature*, 631, 340–343.
102. Koper, K. D., R. Burlacu, R. †Murray, B. Baker, R. Tibi, and A. Mueen (2024). Inferring the focal depths of small earthquakes in southern California using physics-based waveform features, *Bull. Seism. Soc. Am.*, 114, 2376–2396.
101. †Armstrong, A., Z. †Claerhout, B. Baker, and K. D. Koper (2023). A deep learning phase picker with calibrated Bayesian-derived uncertainties for earthquakes in the Yellowstone volcanic region, *Bull. Seism. Soc. Am.*, 113, 2323–2344.
100. †Pang, G., K. D. Koper, S.-M. †Wu, W. Wang, M. Lasbleis, and G. Euler (2023). Enhanced inner core fine-scale heterogeneity toward the Earth's center, *Nature*, 620, 570–575.
99. Farrell, J., K. D. Koper, and R., Sohn (2023). The relationship between wind, waves, bathymetry, and microseisms in Yellowstone Lake, Yellowstone National Park, *J. Geophys. Res.*, 123, e2022JB025943.
98. Dzubay, A., J. R. Moore, R. Finnegan, E. K. Jensen, P. R. Geimer, and K. D. Koper (2022). Rotational components of normal modes measured at a natural sandstone

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97. †Wu, S.-M., G. †Pang, and K. D. Koper (2022). A search for large-scale variations in the fine-scale structure of Earth's inner core, *J. Geophys. Res.*, 127, e2022JB024420.
 96. Kong, Q., R. Wang, W. R. Walter, M. Pyle, K. Koper, and B. Schmandt (2022). Combining deep learning with physics based features in explosion-earthquake discrimination, *Geophys. Res. Lett.*, 49, e2022GL098645, doi:10.1029/2022GL098645.
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