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Research interest: Seismology, Deep Earth interior

[Education]

- 2013: PhD degree in Earth planetary science, University of Tokyo, Japan.
- 2009: Master degree in Earth planetary science, University of Tokyo, Japan.
- 2007: Bachelor degree in Geophysics, University of Tokyo, Japan.

[Experience]

- 2014-now: Postdoc at Academia Sinica, Institute of Earth Sciences, Taipei, Taiwan.
- 2013-2014: Postdoc at Seoul National University, School of Earth and Environmental Sciences, Seoul, Korea.

[Journals publications]

- Hasegawa, K., Fuji, N., **Konishi, K.**, 2018. Improvement of accuracy of the spectral element method for elastic wave computation using modified numerical integration operators, *Computer Methods in Applied Mechanics and Engineering*, 342, 200-223, doi: 10.1016/j.cma.2018.07.025
- Yamaya, L., Borgeaud, A.F.E., Kawai, K., Geller, R.J., **Konishi, K.**, 2018. Effects of redetermination of source time functions on the 3-D velocity T structure inferred by waveform inversion, *Phys. Earth planet. Inter.*, 282, 117–143, doi: 10.1016/j.pepi.2018.04.012
- Hasegawa, K., Fuji, N., **Konishi, K.**, 2018. Improvement of accuracy of the spectral element method for elastic wave computation using modified numerical integration operators, *Comput. Methods Appl. Mech. Engrg.* 342, 200–223
- Borgeaud, A.F.E., Kawai, K., **Konishi, K.**, Geller, R.J., 2017. Imaging paleoslabs in the D'' layer beneath Central America and the Caribbean using seismic waveform inversion, *Sci. Adv.*, 3:e1602700, doi: 10.1126/sciadv.1602700
- **Konishi, K.**, Fuji, N., Deschamps, F., 2017. Elastic and anelastic structure of the lowermost mantle beneath the Western Pacific from waveform inversion, *Geophys. J. Int.*, 208(3), 1290–1304, doi: 10.1093/gji/ggw450
- Suzuki, Y., Kawai, K., Borgeaud, A.F.E., Geller, R.J., **Konishi, K.**, 2016. Waveform inversion for 3-D S-velocity structure of D'' beneath the Northern Pacific: possible evidence for a remnant slab and a passive plume, *Earth Planets Space*, 68:198, doi: 10.1186/s40623-016-0576-0
- Borgeaud, A.F.E., **Konishi, K.**, Kawai, K., Geller, R.J., 2016. Finite frequency effects on apparent S-wave splitting in the D'' layer: comparison between ray theory and full-wave synthetics, *Geophys. J. Int.*, 207, 12–28, doi: 10.1093/gji/ggw254

- **Konishi, K.**, K. Kawai, R.J. Geller and N. Fuji (2014) Waveform inversion for localized three-dimensional seismic velocity structure in the lowermost mantle beneath the Western Pacific, *Geophys. J. Int.*, 199 (2014), pp. 1245–1267., doi: 10.1093/gji/ggu288
- Kawai, K., **K. Konishi**, R.J. Geller and N. Fuji (2014) Methods for inversion of body-wave waveforms for localized three-dimensional seismic structure and an application to D'' structure beneath Central America, *Geophys. J. Int.*, 197, 495–524.
- **Konishi, K.**, K. Kawai, R.J. Geller and N. Fuji (2012) Waveform inversion of broad-band body wave data for the S-velocity structure in the lowermost mantle beneath the Indian subcontinent and Tibetan Plateau, *Geophys. J. Int.*, 191 (2012), pp. 305–316., doi: 10.1111/j.1365-246X.2012.05614.x
- **Konishi, K.**, K. Kawai, R.J. Geller and N. Fuji (2009) MORB in the lowermost mantle beneath the western Pacific: Evidence from waveform inversion, *Earth Planet. Sci. Lett.*, 278 (2009), pp. 219–225., doi:10.1016/j.epsl.2008.12.002.

[Conferences publications]

- **Konishi, K.**, K. Kawai, N. Fuji and R.J. Geller, Waveform inversion for 1D shear structure in the lowermost mantle beneath the western Pacific, Japan Seismological Society annual meeting, 2007 Nov, Sendai
- **Konishi, K.**, K. Kawai, N. Fuji and R.J. Geller, Evidence for phase transitions in pyrolite and MORB beneath the Western Pacific, Japan Geological Union, 2008 May, Chiba
- **Konishi, K.**, K. Kawai, R.J. Geller and N. Fuji, MORB in the lowermost mantle beneath the Western Pacific: Evidence from waveform inversion, Transport Properties of the Lower Mantle Workshop, 2008 Oct, Tochigi
- **Konishi, K.**, K. Kawai, R.J. Geller and N. Fuji, Waveform inversion for shear structure in the lowermost mantle beneath the central Asia, Japan Seismological Society annual meeting, 2009 Nov, Kyoto
- **Konishi, K.**, K. Kawai, R.J. Geller and N. Fuji, Shear wave velocity structure in the lowermost mantle beneath Central Asia, American Geophysical Union Fall Meeting 2009 Dec, San Francisco
- **Konishi, K.**, K. Kawai, N. Fuji and R.J. Geller, Waveform sensitivity on seismic velocity and shear structure in the lowermost mantle beneath the India by waveform inversion, Japan Geological Union, 2010 May, Chiba
- **Konishi, K.**, K. Kawai, N. Fuji and R.J. Geller, Showing the waveform sensitivity against model-changing and applying CG method for obtaining Shear wave velocity structure in the lowermost mantle beneath Central Asia, Western Pacific Geophysics Meeting, 2010 Jun, Taipei
- **Konishi, K.**, K. Kawai, N. Fuji and R.J. Geller, Waveform Inversion of Broadband Body Wave Data for the S-velocity Structure in the Lowermost Mantle Beneath India, Asia Oceania Geosciences Society, 2011 Aug, Taipei
- Kawai, K., **Konishi, K.**, R.J. Geller and N. Fuji, Methods for inversion of body-wave waveforms for localized three-dimensional seismic structure and an application to D'' structure beneath Central America, American Geophysical Union Fall Meeting, 2012 Dec, San Francisco
- **Konishi, K.**, K. Kawai, R.J. Geller and N. Fuji, Waveform inversion for three dimensional shear velocity structure in the lowermost mantle beneath the western Pacific using data from a dense Japanese seismic network, American Geophysical Union Fall Meeting, 2012 Dec, San Francisco
- Geller, R.J., K. Kawai, **Konishi, K.** and N. Fuji, Waveform inversion for Earth structure: Progress and Prospects, American Geophysical Union Fall Meeting, 2012 Dec, San Francisco
- Kawai, K., **Konishi, K.**, R.J. Geller and N. Fuji, Methods for inversion of body-wave waveforms for localized three-dimensional seismic structure and an application to D'', Workshop "Wave Propagation through the Earth's Interior", 2013 May, Wuhan
- **Konishi, K.**, K. Kawai, N. Fuji and R.J. Geller, Shear velocity structure in the mantle transition zone beneath Caroline plate, American Geophysical Union Fall Meeting, 2013 Dec, San Francisco

- **Konishi, K.**, K. Kawai, R.J. Geller and N. Fuji, Waveform inversion for localized 3-D seismic velocity structure in the lowermost mantle beneath the Western Pacific, Japan Geological Union, 2014 May, Yokohama