

Data used to reproduce results from JGR-Solid Earth manuscript "On the broadband instrument response of fiber-optic DAS arrays" by Nathaniel J Lindsey, Horst Rademacher, Jonathan Ajo-Franklin (2019).

File 1 = alaska_event_seismometer_velocity.sac

Info = Guralp CMG-3T fiber-aligned component of velocity ground motion data for 2018-01-23 Alaska M7.9 earthquake recorded at Elkhorn Fire Station in West Sacramento, CA.

Provenance = Trim to origin time + 3600 seconds; Linear detrend; Mean removal; Taper 5%; Instrument response removal; Horizontal component rotation to backazimuth of 322 degrees; Zerophase bandpass filter 0.005 - 0.5 Hz (2 - 200 s); Resample to 10 Hz.

Sampling rate = 10 Hz

File 2 = alaska_event_das_strain.mseed

Info = Silixa iDAS strain-rate ground motion data for 2018-01-23 Alaska M7.9 earthquake recorded at Elkhorn Fire Station in West Sacramento, CA. 500 traces from channel 4545 - channel 5045 at 2m increment (1 km total).

Provenance = Convert from raw to strain-rate; Trim to origin time + 3600 seconds; Linear detrend; Mean removal; Taper 5%; Integrate from strain-rate to strain; Zerophase bandpass filter 0.005 - 0.5 Hz (2 - 200 s); Resample to 10 Hz; Timeshift data based on correlation with seismometer.

Sampling rate = 10 Hz

File 3 = alaska_event_das_velocity.mseed

Info = Silixa iDAS velocity ground motion data for 2018-01-23 Alaska M7.9 earthquake recorded at Elkhorn Fire Station in West Sacramento, CA.

Provenance = Convert from raw to strain-rate; Trim to origin time + 3600 seconds; Linear detrend; Mean removal; Taper 5%; Integrate from strain-rate to strain; Zerophase bandpass filter 0.005 - 0.5 Hz (2 - 200 s); Resample to 10 Hz; Timeshift data based on correlation with seismometer; FK-rescaling from strain to velocity.

Sampling rate = 10 Hz