

Zheng, Y., W. Shen, L. Zhou, Y. Yang, Z. Xie, and M.H. Ritzwoller, Crust and uppermost mantle beneath the North China Craton, northeastern China, and the Sea of Japan from ambient noise tomography, *J. Geophys. Res.*, 116, B12312, doi:10.1029/2011JB008637, 2011.

Properties:

Location: China: North China, NE China, Sea of Japan, Japan

Grid: 1°x1°

Stations: CEArray, GSN, F-Net

Data: Rayleigh wave phase speeds.

Ambient noise: 2007-2009

Earthquakes: NA

Tomography:

Ambient noise: ray theory (Barmin et al., 2001), 6-45 s

Earthquakes: NA

Parameterization: sediment layer, 4 crustal B-splines, 5 B-splines in the mantle

Inversion: Monte Carlo model space sampling.

Forward code: Herrmann

Moho: variable

Format of model file: Zheng_NEChina_2011.zip

The model is broken into a set of 1-D models found in separate data files for each location. The location is actually in the name of each file; e.g., 76_40_model for (lat, lon) = (40, 76). The model has been interpolated onto a fine vertical grid for plotting purposes. The first four km are presented here:

z (km)	Vsv	error
0	1.96182	0.575231
0.1	1.97002	0.57304
0.2	1.97613	0.572907
0.3	1.98473	0.571005
0.4	2.00338	0.560678
0.5	2.01896	0.550371
0.6	2.03512	0.541774
0.7	2.05353	0.523035
0.8	2.06116	0.51954
0.9	2.08376	0.501248
1	2.10033	0.48538
1.1	2.11088	0.479116
1.2	2.11097	0.482266
1.3	2.11832	0.479433
1.4	2.12662	0.4735
1.5	2.13903	0.466179
1.6	2.15535	0.454273
1.7	2.16907	0.446265
1.8	2.18446	0.434495
1.9	2.19392	0.425406
2	2.20179	0.41732

2.1 2.20773 0.410307
2.2 2.20389 0.406918
2.3 2.20724 0.408301
2.4 2.89877 0.16157
2.6 2.9096 0.163266
2.8 2.92904 0.166427
3 2.93762 0.169558
3.2 2.94184 0.173652
3.4 2.9475 0.174889
3.6 2.95343 0.17503
3.8 2.96416 0.172625
4 2.97576 0.16922

The **first column** is depth below the surface in km. The **second column** is V_{sv} in km/s. The **third column** is model uncertainty in km/s. Unlike some of our models, we don't include repeated knots in this one to specify layer boundaries, like the Moho. Also, we do not include in this file crustal thickness and its uncertainty, although these are computed quantities.