Ambient seismic noise monitoring in Chuetsu, Japan and the area affected by wave speed variations

Data Used:
HI-Net borehole Tiltmeters: 284 stations - 276 station pairs
Whitening: 0.1-0.33 Hz
Daily Xcorr: 2004 and 2005
Reference GF: stack of 2 years
October 23, 2004: Mw 6.6 Chuetsu EQ

Stretching:
Stretch reference signal time -> (145)
Compare to day signal correlation coefficient (CC)
S at maximum CC corresponds to ΔV/V

Coda Coherence:

Results:
ΔV/V - Average over 217 station pairs

Conclusions:
- Coseismic wave speed change same amplitude for all epicentral distances: Spatially extended change?
- Regionalization proves difficult: Coda waves sample a large 3D volume

References:
- HI-Net: Okada et al., Earth Planets Space 56, 2004
- Tiltmeter Xcorrs: Nishida et al., JGR 133, 2008
- Monitoring Chuetsu: Wegler et al., JGR 114, 2009

To be continued...