**Site Effect Study from H/V method**

Speaker : Cong-Lun Huang Date : 2013/12/19

**Abstract**

Site effect is an important part in the study of strong motion. Commonly, we calculate the spectrum ratio between a soil site and a rock site to analysis the amplification by alluvial layers (Borcheret, 1970).

However there are two major obstacles using this so called   
“**H/H method**”. The first one is not every stations on the rock site will be triggered by an earthquake; the second one, according to the first one, is that it is hard to find an reference rock site station both near the soil site station and triggered by the same earthquake.

In 1989, Nakamura presented a new method for studying the site effect, which was called “**H/V method**”. Through this method, even if there’s no reference rock site, we can still use a single station’s record to analysis the site effect itself. In this topic we will talk about the H/V method through **microtremor data**, further if we use the **earthquake S-wave record** will get the same result as microtremor data or not.

**References**

Nakamura, Y. (1989). A method for dynamic characteristics estimation of subsurface using microtremor on the ground surface. Railway Technical Research Institute, Quarterly Reports, 30(1).

Lermo, J., & Chávez-García, F. J. (1993). Site effect evaluation using spectral ratios with only one station. Bulletin of the Seismological Society of America,83(5), 1574-1594.