

## Ground motion observation in the near-fault area of the 1999 Chi-Chi, Taiwan, earthquake

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We conducted a temporal ground motion observation in order to discuss the process of generation of the near-fault strong motion during the 1999 Chi-Chi earthquake. The 10 stations were deployed in Taichung and Tali. As a result, seismic amplification was observed at the sediment sites in Tali, whereas de-amplification was observed at those sites in Taichung. At TAL001 station, the EW-component of the spectral ratios relative to TAL004 has a peak corresponding to the theoretical amplification characteristics derived from an array microtremour measurement, whereas the NS-component has no such peak. From the particle motion analysis, it may be caused by the change in predominant direction of shaking due to the effects of topography near the reference site and/or 3-dimensional basin structure.