Attenuation characteristics of the basement PGVs calculated from a source model of the Hyogo-ken Nanbu earthquake

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We succeed to reproduce strong ground motions in Kobe during the Hyogo-ken Nanbu earthquake by using a three-dimensional basin structure and our original 4 asperity source model. Based on that source model we study attenuation characteristics of the synthetic velocity ground motions on the seismic bedrock. We set several observation lines with different azimuths with respect to the fault strike. We found that along the strike strong forward rupture directivity effect is observed up to the end of our observation line, 150km, and that this FRDE is almost equally significant up to 15 dgrees from the strike. Along the backward direction we found that the synthetics are rich in the high frequency component but that PGVs are not smallest bacause of the constructive RDE.