

Slip velocity time function for simulating broadband ground motions --Application to the 1995 Hyogo-ken Nanbu earthquake--

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Slip velocity time function applicable to broadband ground motion simulation was inferred from heterogeneous slip distribution. Source term for each subfault is consist of the slip velocity time function obtained from waveform inversion using lower frequency less than 1Hz and impulse function whose amplitude is proportional to the maximum value of the slip velocity. Near-source ground motion was simulated by convolution of the source term with aftershock records as the empirical Green's function. We clarified that constraint for amplitude, occurring time and location of the impulse function was important for generating higher frequency ground motions.