

## Baseline correction for the acceleration records with high-level noises using the Izmit records during The 1999 Turkey earthquake

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The baseline correction scheme for the acceleration records with high-level noises was investigated in this paper. The scheme was applied, as an example, to the Izmit records during The 1999 Kocaeli Turkey earthquake. The proposed scheme, at first, divided the acceleration time history, excluding the first 10 seconds at which the permanent deformation may occur, into several segments. The baseline of each segment was assumed to be a second power polynomial function and was estimated by the least square method. The baseline of the time history of the first 10 seconds, also assumed as a second power polynomial function, was then determined by applying the continuous conditions of the baseline at the two ends of the segment and making the average acceleration over the time period be zero. It was considered that the baseline correction scheme could result in a reasonable velocity time history.

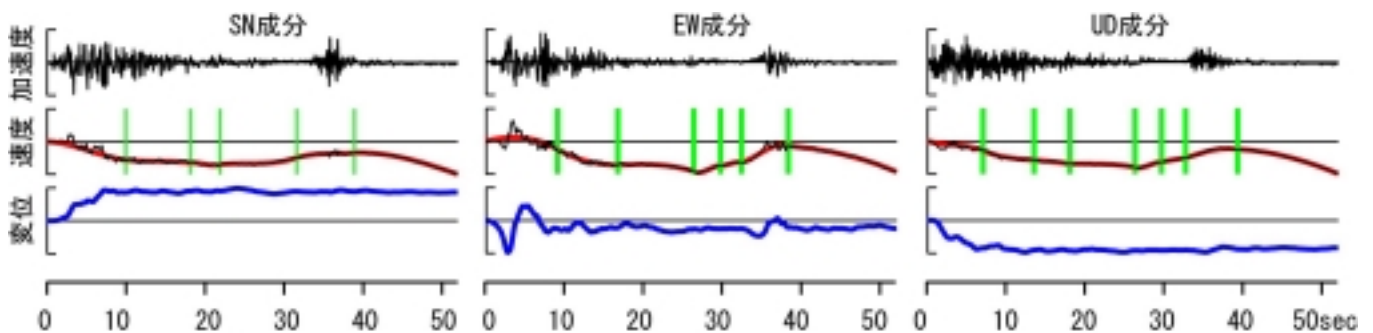


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