

Spatiotemporal variation of p-values for the aftershocks of the 1983 Nihonkai-chubu earthquake

Kenji Ohta[1], Kenji Maeda[2]

[1] Sendai,JMA, [2] JMA Sendai

We investigated the spatiotemporal variation of p-values for the aftershocks of the 1983 Nihonkai-chubu earthquake by using the ETAS model. The aftershock area is divided into the northern, central, and southern regions. The p-value for each region is calculated for three periods: A) the mainshock through the large aftershock, B) the large aftershock through 1990/2, and C) 1990/2 through 1999/8.

What we found is that the p-value for the northern and central regions in the period C is 0.7, which is much smaller than those in the period A and B. We also found that the p-value for the southern region is 1.04 in the period A and goes up to 1.22 in the period B, and recovers in the period C. These results imply that the p-value varies widely in the aftershock area and after a large aftershock.