

The studies of the seismic quiescence and relevancy of the regional seismicity

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We have been studied about the seismic quiescence by using the RTL method (e.g. Huang and Nagao, 2002, GRL, 29, 12, 19-1 - 19-4). The RTL means the acronym of Region, Time and rupture Length. The basic concept of the RTL method is as follows: an earthquake, nearby (R), recent (T) and large (L) one should affect more strongly impending regional seismic activity. The RTL method subtracts background of R, T and L after the normalization. Then, we make multiplication of R, T and L. Therefore, the product of RTL stands at around zero value under the normal condition. We also started the study of relevancy of the regional seismic activity. Recently, the eastward migration of the deep crustal low-frequency tremor was observed from the Kii peninsula to the Tokai region in a month. We might find relevancy of the regional seismicity among the both areas. We checked the past 30 years of seismicity in both regions with depth from 30 to 70 km and M greater than 4. We found 68 quakes under the Kii Pen. and 52 quakes under the Tokai region. Among them, 14 sets of (total numbers of quake were 37) earthquakes of those area occurred within 30 days since either occurs. It means that only 3.8% of time periods produced about 30% of earthquakes. It is worth while to check the relevancy of the seismic activities among two regions.