

Space-time Analysis of the Eruptions in Japan for the Past 2,000 Years

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Base on the historic records of all eruption in Japan for the past 2,000 years, we have investigated the volcanic activity by using space-time analysis. The 1135 eruptions were accumulated and the breakdown numbers are the 615 eruptions of rank-A volcanoes, 397 of rank-B, and 63 of rank-C volcanoes. The eruption frequency rates are approximately 3.3 years duration for the rank-A volcanoes, and 5 years for the rank-B, and 32 years for the rank-C, respectively. The VEI values of the 998 eruptions were estimated and the frequency rates of the eruption are VEI5 for 142 years duration and VEI4 eruption frequency for 70 years duration of rank-A volcanoes. The VEI3 eruption frequency for 15 years duration of rank-A volcanoes and rank-B, and 50 years of rank-C. The eruption frequency rates of less than VEI2 are one year duration of rank-A volcanoes, 2 years of rank-B, and 20 years of rank-C. The top 3 very active volcanoes with higher VEI eruptions are Sakurajima in the southern Japan, Asama in the central Japan, and Oshima in the Izu island chain.

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