

Probabilistic Prediction of Vulcanian Eruptions at the Showa Crater of Sakurajima Based on Ground Inflation

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Ground inflation was detected prior to 4422 vulcanian eruptions at Sakurajima by strainmeters. Frequency distributions of duration, amount, mean rate of strain change and ratio of inflation to deflation strain changes associated with eruptions show lognormal distribution. By using the lognormal distribution of the frequency as probability function, it is possible to stochastically forecast occurrence time and scale of the vulcanian eruptions.

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