

## Volcanic tremors and ash fall volumes associated with the 2018 vulcanian eruptions of Shinmoe-dake

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Kirishima volcanic chain is one of the active volcanoes in southern Kyushu, Japan and is categorized into a composite volcano whose active vents are Shinmoe-dake and Ohachi. The latest eruptive activity of Shinmoe-dake started on August 22, 2008. Subsequently, it erupted on March 30, April 17, May 27, June 27 and 28, and July 5 and 10, 2010. In 2011, the eruption started on January 19 included subplinian and vulcanian explosions. and was followed by sub-Pulinian eruption on 27 January. Eruptive activity gradually ceased since February 2, and moved to Vulcanian activities. It erupted on October in 2017 and on March in 2018. Eruptions continued until June 27. Tajima et. al (JpGU 2019) show volcanic ashfall volumes for each eruption in 2018 and we discuss the relation of ashfall volumes and durations of eruptions that is characterized by the power law: ashfall volume is proportional to durations to the second power.

Keywords: vulcanian eruption, volcanic tremor, ashfall volumes, Shinmoe-dake volcano

Fig. 1

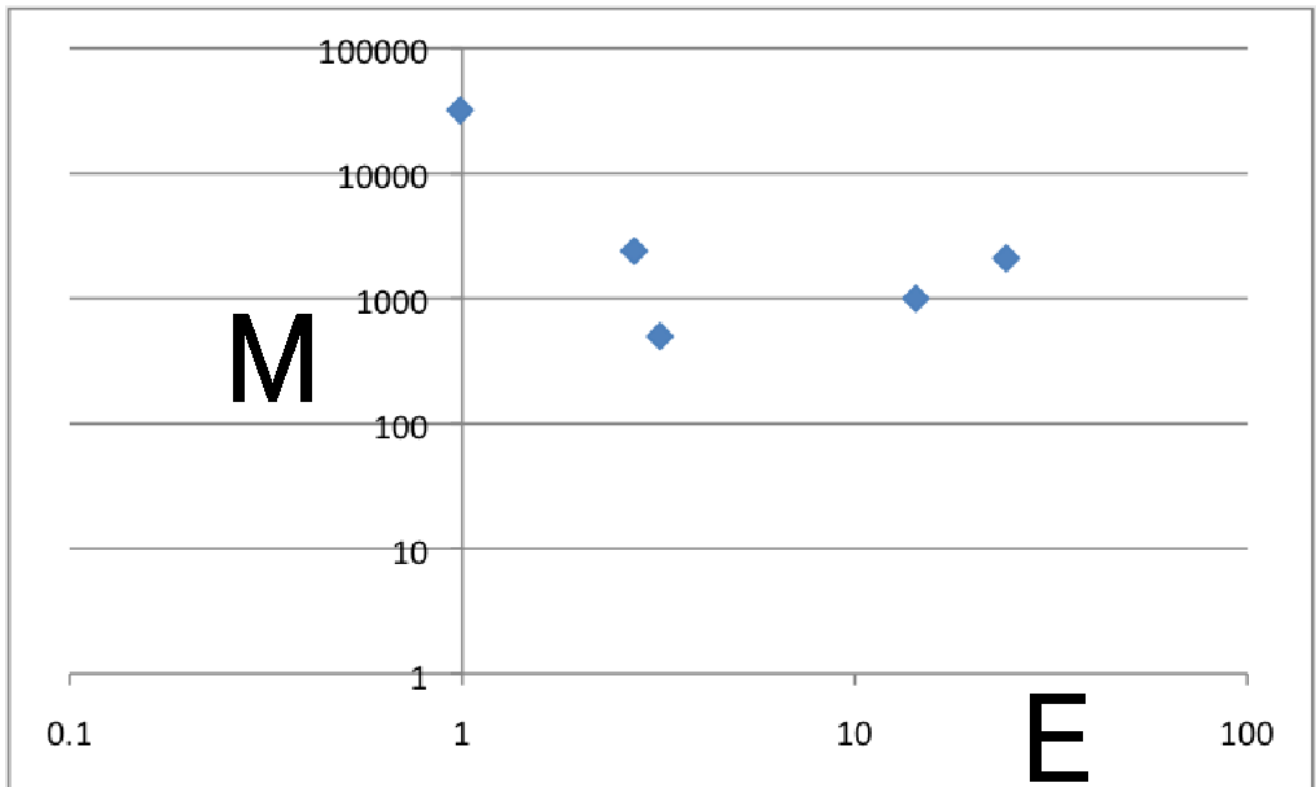


Fig. 2

