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CORRECTION Open Access

Correction to: Magnitude–frequency distribution of volcanic explosion earthquakes

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The original version of this article (Nishimura et al. 2016) contained a mistake. Reduced displacements D_R in Table 1 were not correctly calculated and the unit was wrong. The reduced displacement should be as in the corrected version below, in which the equation of $D_R = A_0\sqrt{\lambda r/2}$, which is shown in "Discussion" section, is used to calculate the correct values using the epicentral distance r, the maximum amplitude A_0 and the wavelength λ in Table 1. The reduced displacements shown in Table 1 were not discussed in the paper so that the conclusion of this paper does not change.

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Table 1 Estimated parameters of explosion earthquakes at active volcanoes

Volcano (observation period)	Corr. coeff.		D_{max}		N_b	$D_{max}\sqrt{N_b}$		Δ (km)	Freq. (Hz)	D_R (cm^2)	a_0	Unit	A_0 (mm)	M
	D-log	*s*-log	*D*-log	*s*-log		*D*-log	*s*-log							
Sakurajima Minami-dake (1963–1999)	0.892	0.996	0.310	0.171	30	1.698	0.938	2.7	1.0	871.4	0.0750	mm	0.0750	1.8
Sakurajima Showa crater (2008–2011)	0.948	0.989	0.170	0.055	21	0.777	0.253	3.0	1.0	347.8	0.0284	mm	0.0284	1.4
Suwanosejima (January–June, 2011)	0.998	0.891	0.040	0.206	27	0.207	1.070	0.5	2.0	50.7	0.1800	mm/s	0.0143	−0.2
Tokachi–dake (December 16, 1988–March 5, 1989)	0.907	0.987	0.202	0.102	10	0.638	0.321	4.5	1.0	357.0	0.0238	mm	0.0238	1.7
Semeru Vulcanian (March 18–April 10, 2007)	0.967	0.995	0.044	0.043	52	0.318	0.312	0.5	1.0	939.5	1.1800	mm/s	0.1879	0.9
Semeru Gas bursts (March 17–April 10, 2011)	0.955	0.997	0.054	0.043	36	0.323	0.257	0.5	1.0	560.5	0.7040	mm/s	0.1121	0.7
Lokon (September 2012–September 2013)	0.934	0.973	0.223	0.128	18	0.948	0.541	1.4	1.0	547.6	0.4110	mm/s	0.0654	1.2
Stromboli 1–8 Hz (June 2014)	0.940	0.989	0.073	0.058	39	0.454	0.360	0.4	4.0	0.9	0.0097	mm/s	0.0004	−1.9
Stromboli 0.05–0.2 Hz (June 2014)	0.965	0.996	0.078	0.024	33	0.446	0.135	0.4	–	–	0.2700	m/s	–	–

D- and *s*-log represent double logarithmic and semi-logarithmic graphs, respectively. N_b is the number of amplitude bins, and D_{max} is the maximum difference between the observed cumulative probability distribution and the model function. Δ is the distance from active crater to station. D_R is the reduced displacement, a_0 is the characteristic amplitude A_0 is the maximum amplitude in displacement, M is the magnitude of explosion earthquake

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