# Ground tilt change associated with the eruptive activity of Sakurajima volcano

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The ground tilt change associated with the eruptive activity of Sakurajima volcano in southern Kyushu, Japan is investigated in order to clarify the magma movement before the eruption. The magma supply system of Sakurajima volcano is inferred to be composed of two magma reservoirs: the deep primary one located beneath the Aira caldera at a depth of about 10 km and the shallow one located beneath the summit crater. We analyze the data from tiltmeter installed in the borehole located between the summit crater and the Aira caldera. Until now, we have analyzed two examples of tilt changes associated with explosive eruptions on Sep. 18, 1997 and on Dec. 10, 1999, respectively. Both records observe the upward tilt towards the summit crater before the explosions and the abrupt downward tilt after them, indicating the inflation-deflation process at the shallow magma reservoir. In addition, abnormal tilt changes starting at a few days further before the explosions are found. These tilt changes may be related to the phenomena at the deep primary magma reservoir.