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Experimental modeling of infrasound emission produced by change level of magma into volcanic conduit.

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One type of signal VLF ($\sim 0.5\text{Hz}$) recorded on Etna volcano in Italy, was investigated by laboratory experiments. In order to understand how is the sound source, the acoustic wave and the signal frequency was studied modeling the oscillatory motion of the liquid level in a system that modeling the camera and conduit volcanic filled of magma. Previous experiments modeled gravitational movement of a liquid oscillations in a tube. Further, in this study we measured the signal pressure caused by sudden change in the fluid level, inside and outside the system. The amplitude of the sound pressure signal and the oscillation of the liquid level by varying parameters are contrasted as; overpressure, fluid density and the tube length to best interpret the emission source of the signal.