



## **Volcanic seismicity: towards a magma flow meter**

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Low-frequency seismic earthquake swarms have alerted staff in volcano observatories worldwide of an imminent change in activity, mostly interpreted as an accelerating magma ascent rate of some kind. The different interpretations are very much dependent on the conceptual model of the actual trigger mechanism that generates the seismicity in the first place. Examples of such trigger mechanisms are sudden gas release into a crack, stick-slip motion of crystallised magma, and brittle failure of magma in glass transition. In this contribution we will favour the latter and put this model in a wider volcanological context such that we simultaneously explain accompanying phenomena such as ground deformation, the processes during magma flow, the seismic source location, as well as the seismic amplitude and radiation pattern.