



Intermittency in Volcanic Earthquakes Occurrence

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We interpret the occurrence of volcanic earthquakes, associated with the explosions observed at Stromboli, as an intermittent phenomenon. Laminar phases are represented by the volcanic tremor, whereas explosion quakes are the bursts of activity. The (microscopic) dynamics of the phenomenon is related to the bubbles formation within the magma. Our interpretation is supported by the very similar statistical behaviour between suitably averaged experimental time series recorded at Stromboli volcano and a series generated by a theoretical map, exhibiting intermittent behaviour. Since Strombolian activity occurs on many volcanoes, this puts very useful constraints in modelling the volcanic system.