



## **First results from the permanent SO<sub>2</sub> Camera system at Stromboli**

Giuseppe G. Salerno (1), Mike Burton (1), Tommaso Caltabiano (1), Luca D'Auria (2), Roberto Maugeri (1), and Filippo Mure (1)

(1) Istituto Nazionale di Geofisica e Vulcanologia, Osservatorio Etneo, Italy, (2) Istituto Nazionale di Geofisica e Vulcanologia, Osservatorio Vesuviano, Italy

Since the 1980's volcano monitoring has undergone stunning changes, evolving from descriptive and sparse observations to a systematic-quantitative approach of science and technology. Surveillance of chemical gas composition and their emission rate is a vital part of efforts in interpreting volcanic activity of observatories since their changes are closely linked with seismicity and deformation swings. In this unruly technology progression, volcanic gas sensing observations have also undergone a profound revolution, for example by increasing observation frequency of SO<sub>2</sub> flux from a few samples per day to Hz. In May 2013, a permanent-robotic SO<sub>2</sub> dual-camera system was installed by the Istituto Nazionale di Geofisica e Vulcanologia at Stromboli as a part of the ultraviolet scanning spectrometers network FLAME, with the intent to underpin the geochemical surveillance and shed light on degassing and volcanic processes. Here, we present the first results of SO<sub>2</sub> flux observed by the permanent SO<sub>2</sub> camera system in the period between May 2013 and April 2015. Results are corroborated with the well established FLAME ultraviolet scanning network and also compared with VLP signals from the seismic network.