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# Miscellanea

# INGV

Riassunti estesi

**Conferenza A. Rittmann**

Nicolosi (Catania) 12 | 14 dicembre 2012

# 15



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RIASSUNTI ESTESI

**CONFERENZA A. RITTMANN**

NICOLOSI (CATANIA) 12 | 14 DICEMBRE 2012

a cura del Comitato Scientifico A. Rittmann





Istituto Nazionale di  
Geofisica e Vulcanologia

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Il vulcano Etna in eruzione (foto di Thomas Reichart)

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**Multidisciplinary monitoring of volcanic activity during the July–August 2011 lava fountain activities occurred on Etna Volcano**

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**Moment Tensor Inversion of Very Long Period (VLP) events recorded at Mt. Etna during the October 2005 – January 2006 time interval**

Luciano Zuccarello, Ivan Lokmer, Christopher J. Bean, Gilberto Saccorotti, Domenico Patanè

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## Reduction of hazard from volcanic ash plumes between Sicily and Malta: the VAMOS SEGURO project

Simona Scollo<sup>1</sup>, Francelle Azzopardi<sup>2</sup>, Antonella Boselli<sup>3,4</sup>, Mauro Coltelli<sup>1</sup>, Raymond Ellul<sup>2</sup>,  
Giuseppe Leto<sup>5</sup>, Federico Messana<sup>6</sup>, Gianluca Pisani<sup>3,7</sup>, Michele Prestifilippo<sup>1</sup>, Martin Saliba<sup>2</sup>,  
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Volcanic clouds disperse a great amount of volcanic ash into the atmosphere and constitute a major hazard to aviation and the local population. The accidental encounter between volcanic ash and airplanes causes damage to control surfaces, windshields and landing lights, loss of visibility and failure of critical navigational and operation instrumentations and in the worst scenario the failure of the engine. Moreover, volcanic ash deposited on the ground cause respiratory problems, eye injuries and skin irritations, damage to crops, roads and infrastructures.

Etna is one of the most active volcanoes in the world and during its frequent explosive episodes, eruption columns can rise to several kilometers above the summit craters and volcanic ash plumes may be dispersed into the atmosphere and reach as far as the Maltese islands. In order to reduce the impact that Etna's explosive activity has in the area between Sicily and Malta, a new research project VAMOS SEGURO (Volcanic Ash Monitoring and ForecaSting between Sicilia and Malta arEa and sharingG of the resUlts foR aviatiOn safety) has been funded by Programma di Cooperazione Transfrontaliera Italia-Malta 2007-2013, A1.2.3-62, Obiettivo Specifico 2.3).

In this project, new instruments have been installed at the University observatory facility at Giordan

lighthouse and at Xewkija, Gozo. Moreover, an innovative Lidar system with scanning capability, designed and realized by CNISM (Consorzio Interuniversitario per le Scienze Fisiche della Materia) will be installed at two suitable sites will be able, one in Montedoro, Caltanissetta and another at Serra La Nave, 7 km away from the Etna summits will be located. Furthermore, an automatic forecasting system will produce simulations of the region affected by the volcanic ash plumes on a daily basis visible at [www.ct.ingv.it/vamosseguro](http://www.ct.ingv.it/vamosseguro). The Istituto Nazionale di Geofisica e Vulcanologia, Osservatorio Etneo, lead partner of the project, together

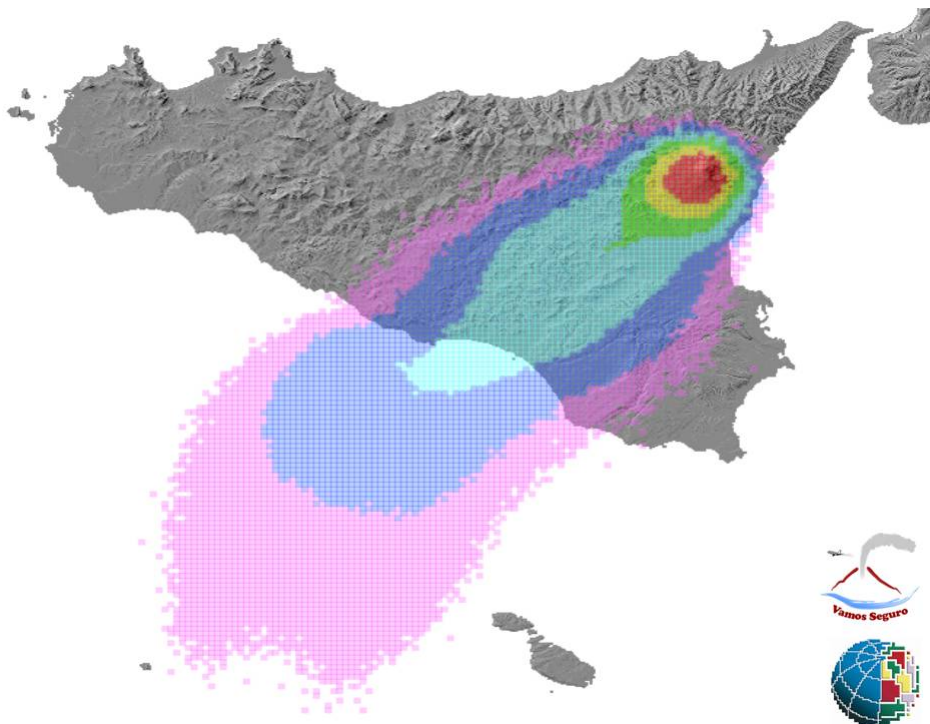


Figure 1. An example of volcanic ash forecasting between Sicily and Malta.

with the Istituto Nazionale di Astrofisica, Comune of Montedoro and the University of Malta, will provide actual measurements of ash and SO<sub>2</sub> plumes and provide warnings to the competent Civil Authorities and Catania and Malta airports in the case of Etna eruptions.

**Coordinamento editoriale e impaginazione**

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