



Università di Firenze - UNIFI (1321)

Department of Earth Sciences

Research Fields:

Seismology, Explosive Volcanisms, Infrasound, Ground-Deformations, Satellite and Ground-Based Thermal Imagery.

Ongoing Projects:

DPC- Monitoring Center of the Italian Civil Protection (Stromboli & Etna)

ARISE - European Infrasonic Infrastructure for Atmospheric Research

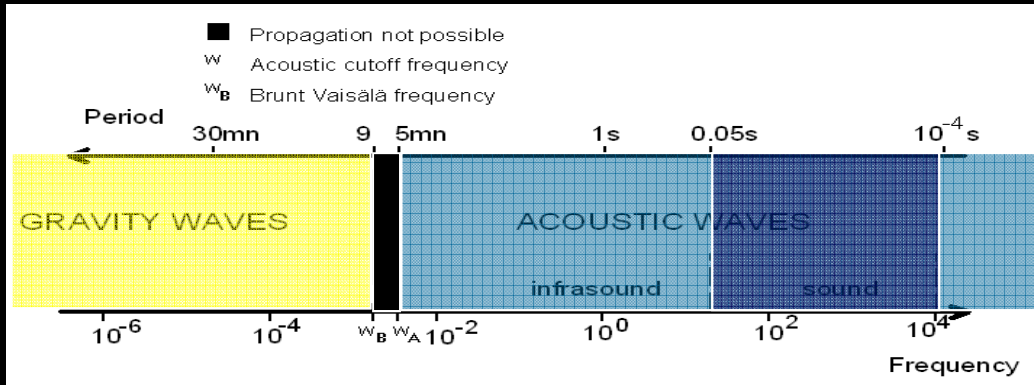
DYNAVAL- Snow Avalanche Infrasonic Monitoring (Western Alps)

JRC - Tsunami Alert System (Mediterranean Sea - Stromboli)





What we do: Infrasound Monitoring

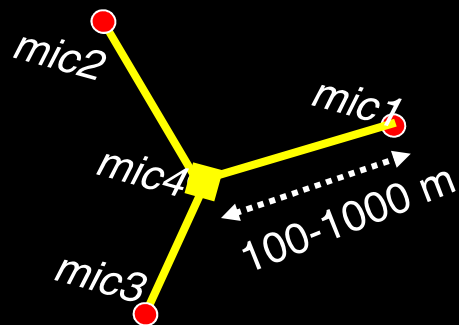


From infrasound <math><20</math> Hz to Gravity waves (~ 1 mHz)

9 Permanent Infrasonic Arrays

- 8 small (<math><100</math> m) arrays (4/Italy, 1/Montserrat, 1/Iceland, 1/Japan, 1/Greece)
- 1 large (>1000m) array - Italy

Snow Avalanches



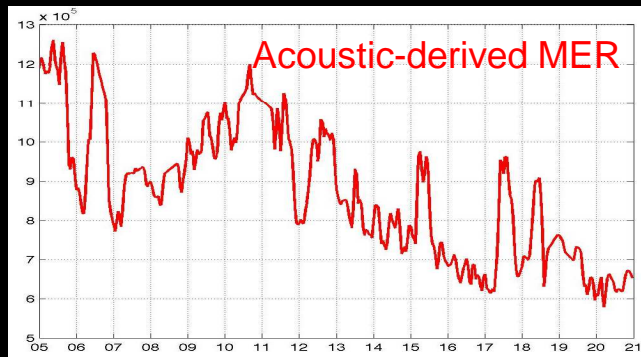


UNIFI Contributions in FutureVolc WP7

- Deployment of 3 4-elements arrays (M14)

Objectives

- Multichannel Infrasonic Source Location (M24)
- Early Warning of Eruption Onset (M33 in WP6)



Near Real-Time Eruptive Source Parameters (M40)

- Acoustic source velocity (=Plume Rise Velocity)
- Volumetric/Mass flux (= Mass Eruption Rate)

Integration with Ash-Dispersal Modeling (M40)

- Plume Height

