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MED-SUV 1\textsuperscript{st} YEAR MEETING
NICOLOSI (CATANIA) 7 | 9 JULY 2014

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Acknowledgements

Tommaso Caltabiano and Gillian Foulger are acknowledged for their contribution to this volume.

Con la collaborazione di

Comune di Nicolosi
PARCO DELL’ETNA

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Immagine di frontespizio
La lava dell’eruzione del 1669 circonda Catania. Affresco di Giacinto Platania (testimone oculare dell’evento), conservato nella cattedrale di Catania.
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Ciro Del Negro, Annalisa Cappello, Marco Neri, Giuseppe Bilotta, Alexis Herault, Gaetana Ganci
Seismological Data at Mt. Etna

Salvatore Alparone, Marcello D’Agostino, Giuseppe Di Grazia, Ferruccio Ferrari, Salvatore Spampinato

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Data of local seismicity recorded in the Etna area during the time span 2005-2011 have been selected for sharing. Basically they are of three types. First, raw continuous signals from permanent digital stations, equipped with three-component broad band sensors 40s period, for the most part. The sample rate of the signals is 100 Hz. Taking into account criteria such as: signal quality, availability of at least 3 year of data for each station, and sufficient azimuthal coverage of the Etna volcanic area, we obtained a network of about twenty stations. We also provide an earthquake catalogue, obtained from off-line analysis of the digital seismograms daily performed by expert personnel at Osservatorio Etneo (INGV). The data are in ASCII format, and concern parametric information (latitude, longitude, depth, magnitude, etc.) about the hypocenter of ca 800 earthquakes, which occurred in the area of Mount Etna between 2005 and 2011. This catalogue reports shocks with magnitude greater than or equal to 2.0 and error threshold not greater than fixed values (e.g., horizontal and vertical hypocentral errors less than or equal to 2.0 km, RMS travel-time residual less than or equal to 0.35s, etc.). The third type of data is the RMS amplitude value of the continuous background seismic signal. These values are calculated by an automatic tool which processes the on-line signal from remote seismic stations. The amplitude data are calculated both in the whole unfiltered continuous signal, and in frequency bands 1 Hz wide, between 0.5 and 15 Hz. The format of data is ASCII. For treatment and characterization of each type of data, appropriate metadata, concerning station position, instrumental and processing specifications and any other useful information, have been considered.