

OEDataRep

Osservatorio Etneo Data Repository

Mario Torrisi¹, Fabrizio Pistagna¹,
Placido Montalto^{1,3}, Mario Locati², Carmelo Cassisi¹

¹ INGV Sezione Catania, Osservatorio Etneo

² INGV Sezione Milano, Coordinatore INGV Ufficio Gestione Dati

³ Referente Dipartimento Vulcani

Roma 15 Novembre 2023

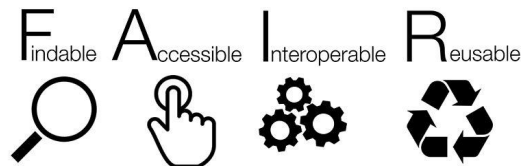
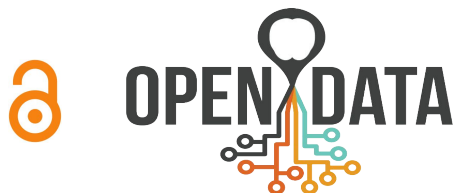
Giornata di discussione sulla gestione e condivisione dei dati all'INGV

Sommario

1. OEDataRep - Archivio Generalista Open Access dell'Osservatorio Etneo
2. Flusso di utilizzo
3. Nascita ed evoluzione del repository
 - a. Da Zenodo a InvenioRDM
4. Distribuzione
 - a. Repository Open Source su Github
 - b. Metodologie di deployment
5. Sviluppi Futuri
6. Riferimenti

OEDataRep - Archivio Generalista Open Access dell'Osservatorio Etneo

- Nasce dalla necessità di fornire uno strumento ai ricercatori dell'Osservatorio Etneo che permetta la creazione di *landing-pages web* risolvibili tramite DOI univoco, dove pubblicare *datasets*, secondo il paradigma Open Data e nel rispetto dei principi **FAIR**
- Integrazione con il **Metadata Editor** del Registro Dati INGV



Time series of seismic RMS amplitude at ECPNz and EMFOz from December 2020 to February 2022 (RMS_ECPN_EMFO_20_22)

Cannata, Andrea¹ · Gambino, Salvatore² · Iozzia, Adriana¹

Data curator:
Cannata, Andrea¹

Researchers:
Gambino, Salvatore² · Iozzia, Adriana¹

Rights holder:
Istituto Nazionale di Geofisica e Vulcanologia (INGV)

Citation

Cannata, A., Gambino, S., & Iozzia, A. (2023). Time series of seismic RMS amplitude at ECPNz and EMFOz from December 2020 to February 2022 (RMS_ECPN_EMFO_20_22) (Version 1) [Data set]. Istituto Nazionale di Geofisica e Vulcanologia (INGV). <https://doi.org/10.13127/etna/rmsecpnemo2022>

Description

This data collection contains time series of RMS amplitude, computed on the vertical component of the seismic signal acquired by ECPN and EMFO seismic stations, belonging to the permanent seismic network run by INGV, Osservatorio Etno. These stations are equipped with broadband (40s cut-off period) 3C Trillium seismometers, acquiring at a sampling rate of 100 Hz. The signals were band-pass filtered in the range 0.5-5.5 Hz. The windowlength is equal to 5 min and 5 h for ECPN and EMFO, respectively. The data collection is linked to the paper "Changing magma recharge/discharge dynamics during the 2020-22 lava fountaining activity at Mt. Etna revealed by tilt deformation and volcanic tremor" by Massimiliano Cardone, Andrea Cannata, Adriana Iozzia, Vittorio Minio, Marco Viccaro, Salvatore Gambino.

Files

Tremor_ECPN_5min_dec2020_feb2022.CSV

Files (3.5 MB)

Additional details

Identifiers	Dates
DOI 10.13127/etna/rmsecpnemo2022	

Dataset Open

Show affiliations

Show affiliations

Style APA

Versions

Version 1
10.13127/etna/rmsecpnemo2022 Sep 19, 2023

Keywords and subjects

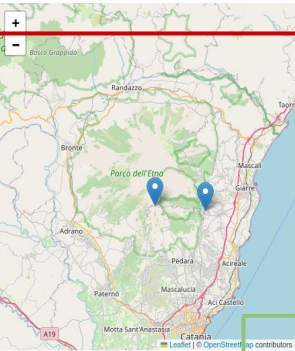
Seismic RMS amplitude | Volcanic tremor

Details

DOI
10.13127/etna/rmsecpnemo2022

Locations

Etna



Resource type

Dataset


Publisher

Istituto Nazionale di Geofisica e Vulcanologia (INGV)

Languages

English

Rights

 Creative Commons Attribution 4.0 International

Export

JSON Export



Assegnazione di un identificatore univoco e persistente a livello globale (DOI)

Accesso a dati e metadati attraverso protocolli di comunicazione standardizzati (WEB)

Garantire l'accesso e l'utilizzo programmatico di dati e metadati (API)

Dati e metadati documentati per poter essere riprodotti o riutilizzati in diversi contesti

Flusso di utilizzo

Metadata Editor

- Creazione della scheda
- Compilazione dei metadati

OEDataRep

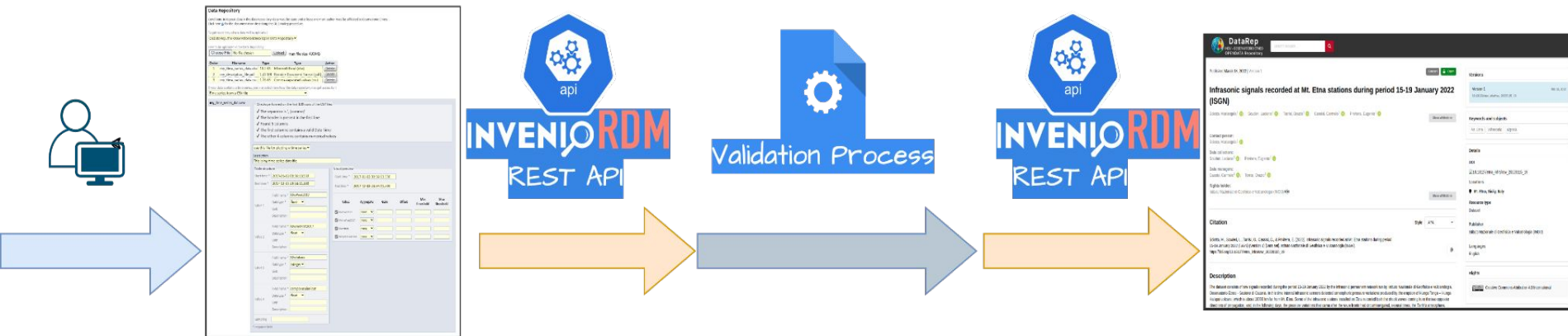
- Creazione del record in bozza
- Caricamento dei metadati e dati

Metadata Editor

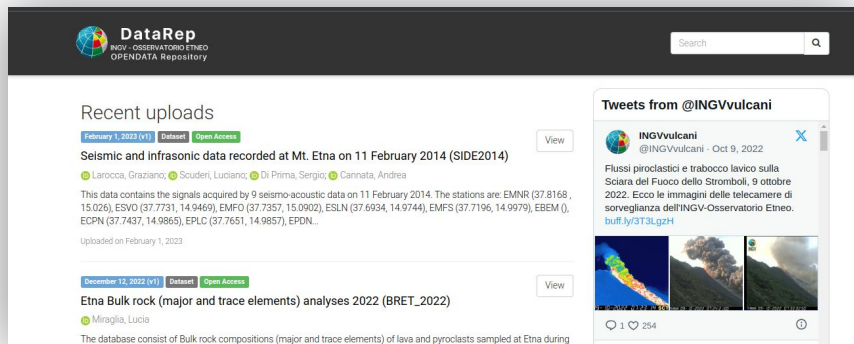
- Processo di Validazione della scheda
- Assegnazione DOI

OEDataRep


- Pubblicazione del record
- Creazione landing page del record



Nascita ed evoluzione del repository dati



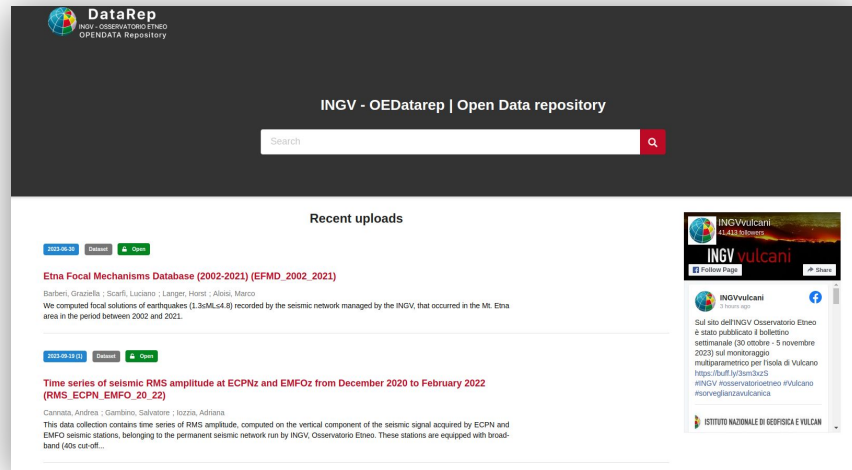
The screenshot shows the DataRep repository interface. At the top, there is a search bar and the logo for DataRep (INGV - OSSERVATORIO ETNEO OPENDATA Repository). Below the search bar, there are two sections for recent uploads. The first section is titled "February 1, 2022 (v1)" and contains a dataset titled "Seismic and infrasonic data recorded at Mt. Etna on 11 February 2014 (SIDE2014)". The second section is titled "December 12, 2022 (v1)" and contains a dataset titled "Etna Bulk rock (major and trace elements) analyses 2022 (BRET_2022)". To the right of the first dataset, there is a tweet from @INGVvulcani dated Oct 9, 2022, which includes a video of a volcanic eruption and the text "Flussi proclastici e trabocco lavico sulla Sciara del Fuoco dello Stromboli, 9 ottobre 2022. Ecco le immagini delle telecamere di sorveglianza dell'INGV-Osservatorio Etno. buff.ly/3T3LgZH".

2020/2021 Nasce il prototipo DataRep
(Torrise et al. 2022, DOI: [10.13127/rpt/457](https://doi.org/10.13127/rpt/457)) basato
su 
(GitHub <https://github.com/ingv-oe-dev/zenodo>)

Fine 2022 Evolve in OEDataRep, passando
da Zenodo a 

(GitHub
<https://github.com/ingv-oe-dev/oedaterep-invenio-rdm>)

N.B. [Zenodo's next generation platform - InvenioRDM](https://zenodo.org/next-generation-platform-invenio-rdm)



The screenshot shows the OEDataRep repository interface. At the top, there is a search bar and the logo for DataRep (INGV - OSSERVATORIO ETNEO OPENDATA Repository). Below the search bar, there is a section titled "Recent uploads" with two datasets. The first dataset is titled "Etna Focal Mechanisms Database (2002-2021) (EFMD_2002_2021)" and the second is titled "Time series of seismic RMS amplitude at ECPNz and EMFOz from December 2020 to February 2022 (RMS_ECPN_EMFO_20_22)". To the right of the datasets, there are social media links for @INGVvulcani on Twitter and Facebook, and a link to the INGV website. At the bottom right, there is a logo for the Istituto Nazionale di Geofisica e Vulcanologia.

OEDataRep: un repository basato su InvenioRDM

InvenioRDM, the *turn-key research data management (RDM) repository platform* based on *Invenio Framework (and Zenodo)*



UX di prima classe



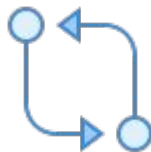
Scalabilità

Gestisci 1 o 100 milioni di record, 1 byte o diversi petabyte. Funziona su bare metal, VM e piattaforme container come **Docker**, **Kubernetes** e OpenShift.



Resiliente

Progettato da zero per essere resiliente ai mutevoli requisiti aziendali. **API stabili**, manutenzione e **aggiornamento** facili, nonché una **piattaforma estensibile** per garantire un nucleo affidabile su cui creare nuove funzionalità e integrazioni innovative.



Integrazione istituzionale

InvenioRDM supporta soluzioni Single Sign-On (SSO), diversi sistemi di storage, cloud pubblici/privati, modelli di autorizzazione e i campi di metadati personalizzati (**Custom Fields**).



Next Generation Repository

InvenioRDM implementa la visione Next Generation Repository (NGR) e si integra con altre infrastrutture di Open Science come ORCID, DataCite e OpenAIRE.

26 result(s) found

Sort by Newest

Versions

 View all versions

Access status

 Open

Resource types

 Dataset

Help

[Search guide](#)

June 30, 2023 (v1) Dataset Open

Etna Focal Mechanisms Database (2002-2021) (EFMD_2002_2021)Barberi, Graziella ; Scarfi, Luciano ; Langer, Horst 

We computed focal solutions of earthquakes ($1.3 \leq M_L \leq 4.8$) recorded by the seismic network managed by the INGV, that occurred in the Mt. Etna area in the period between 2002 and 2021.

Uploaded on September 25, 2023

26

September 19, 2023 (1) Dataset Open

Time series of seismic RMS amplitude at ECPNz and EMFOz from December 2020 to February 2022 (RMS_ECPN_EMFO_20_22)Cannata, Andrea ; Gambino, Salvatore ; Iozzia, Adriana 

This data collection contains time series of RMS amplitude, computed on the vertical component of the seismic signal acquired by ECPN and EMFO seismic stations, belonging to the permanent seismic network run by INGV, Osservatorio Etno. These stations are equipped with broadband (40s cut-off period) 3C Trillium seismometers, acquiring at a ssamp...

Uploaded on September 19, 2023

26

September 8, 2023 (1) Dataset Open

Time series of Etna tilt data of ECPN and CDV during 2020 - 2022 (ECLNI2020_2022)Gambino, Salvatore ; Ferro, Angelo; Laudani, Giuseppe

CDV_dec20_feb22: This dataset contains tilt data acquired by CDV tilt station and belonging to the Etna tiltmeters Network, run by INGV- Osservatorio Etno. It holds data from December 2020 to February 2022 with a sampling of 1 sample/min. In particular two components are presented, both measured in microradians: the x component (N175E) and the ...

Uploaded on September 8, 2023

July 3, 2023 (v1) Dataset Open

Selection of daily distance variations (2002-2021) at Mount Etna (EDDV_2002_2021)Scarfi, Luciano ; Aloisi, Marco ; Barberi, Graziella 

Selection of daily distance variations between two pairs of GPS benchmarks (EMGL-EMAL and EMEG-ESLN) located in the western flank of Mt. Etna during 2002-2021. (Format: two GPS daily distance variations separated by comma in meters). The authors acknowledge the Technicians and Technologists of the INGV - Osservatorio Etno (GPS Permanent Networ...

Distribuzione: codice Open Source



Deployment “meta” repository (via Docker, Docker-Compose, Docker-Swarm)

<https://github.com/ingv-oe-dev/oedatarep-invenio-rdm>

OEDataRep Invenio module for TSD System integration

<https://github.com/ingv-oe-dev/oedatarep-ts-loader>

TSDSystem main repository

<https://github.com/ingv-oe-dev/tsdsystem>

InvenioRDM “core” App fork repository

<https://github.com/ingv-oe-dev/invenio-app-rdm>

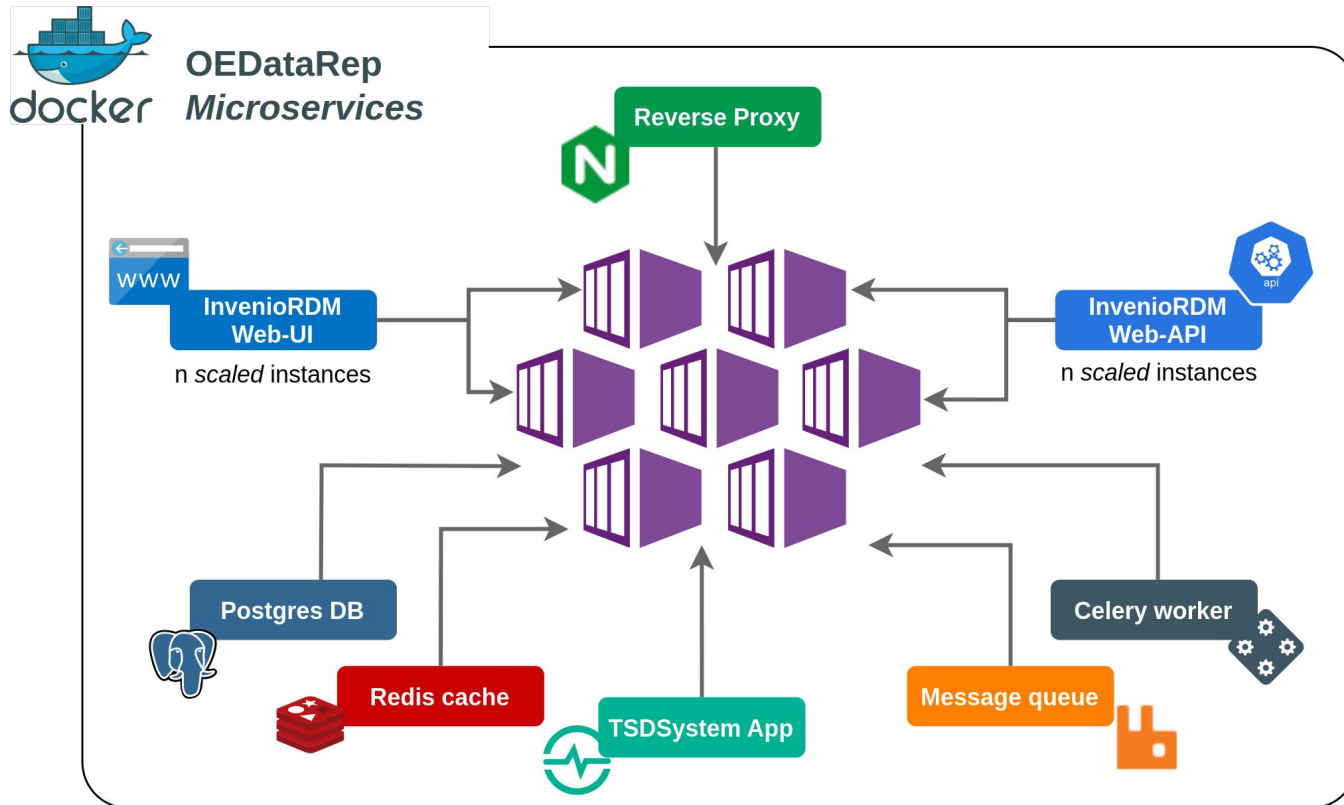
ImproveRDM data repository implementation

<https://github.com/ingv-oe-dev/improve-invenio-rdm>

OEDataRep Manual

<https://github.com/ingv-oe-dev/datarep-manual>

Distribuzione: Metodologie di deployment



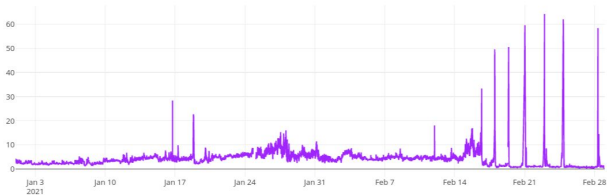
OEDataRep: integrazioni e personalizzazioni

Files

emfs_velocimeter2.csv

Files (009.1 KB)

Time Series



Additional details

Identifiers	Related works	Time Series section
emfs_velocimeter2 (Guid: 82833320-d869-4c36-a732-091c3ac4c06f) TSD url: (https://sandbox.oedaterep.ct.ingv.it:6443/tsdws/timeseries/82833320-d869-4c36-a732-091c3ac4c06f/values?columns=mv&columns_aggregate=&columns_gain=&columns_offset=&columns_minthreshold=&columns_maxthreshold=&endtime=2021-02-28+23%3A55%3A00&starttime=2021-01-01+00%3A00%3A00)		

TSDSystem

Time Series Database System, Database per l'archiviazione e consultazione di serie temporali

Data Provider

Insieme di servizi RESTful esposti;
Data Proxy gateway verso i servizi di data providing

INGV OSSERVATORIO ETNEO
SEZIONE DI CATANIA

INGV-OE Data Provider

OE data provider is an useful tool powered by UFSO for providing raw data to OE users using standard GUI and REST API.

The data and the services are continuously updated.

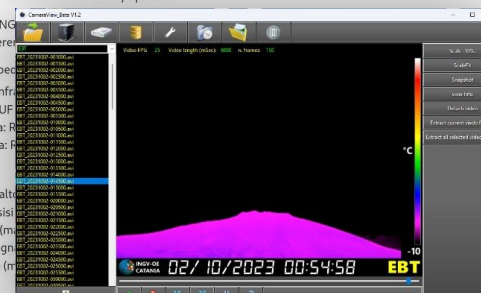
In compliance to INGV have to ask to referer

Data - Reference per

- Seismic and info
- Video data: RUP
- Geodetic data: RUP
- INGV-OE data:

Credits

- Placido Montalto
- Carmelo Cassisi
- Mario Torrisi (m)
- Fabrizio Pistagno
- Marco Aliotta (m)



DISCLAIMER

The information and data contained in this page have been provided by person
Volontario. All intellectual property rights relative to the information and data provided are reserved by the provider.

Sviluppi Futuri

Migliorare l'integrazione con il Metadata Editor

Implementazione ed integrazione 100% di un Object Store come repository storage backend

Implementazione di una Federazione tra repository InvenioRDM

Porting 100% su infrastruttura Kubernetes

Integrazione con servizi OGC (Open Geospatial Consortium)

Riferimenti

OEDataRep

- <https://oedatarep.ct.ingv.it/>

Data Repository Registry

- Re3Data: <https://www.re3data.org/repository/r3d100014141>
- Fairsharing: <https://fairsharing.org/4964>

Global Directory of Open Access Repositories

- OpenDOAR: <https://v2.sherpa.ac.uk/id/repository/10759>

Rapporto tecnico

- Torrisi, M., Pistagna, F., D'Agostino, M., Locati, M., & Montalto, P. M. (2022). Prototipo di un portale per la distribuzione dei dati dell'Osservatorio Etneo basato sulla piattaforma Zenodo. Rapporti Tecnici INGV, 457. <https://doi.org/10.13127/RPT/457>
- (Under revision) Pistagna, F., Torrisi, M., Cassisi, C., Locati, M., & Montalto, P. M. OEDataRep: the new release of the Osservatorio Etneo Open Data Repository

InvenioRDM

<https://inveniosoftware.org/products/rdm/>

