InSAR and GPS data of the 2011-2013 unrest at Campi Flegrei (Italy)

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***Abstract*—This Research Object contains the InSAR data (COSMO-Skymed ascending and descending orbits) and GPS data from INGV related to the Campi Flegrei caldera during 2011-2013. The dataset was processed with GAMMA software and was subsampled with step 100m-150m. Ascii file and png images are stored.**

I. Introduction

This document provides a paper-style view of the Research Object (RO) "*InSAR and GPS data of the 2011-2013 unrest at Campi Flegrei (Italy)*"[1] generated . The RO has been created, managed and preserved via ROHub platform [1]. Please refer to [2] for a general introduction to the RO concept, to [3] for a detailed description of the RO model, and to [4] for more information about ROHub platform.

The RO is of type *"Data-centric", which represents an aggregation of related resources where data resources (e.g., datasets, documents, files) play the central role.* [2].

An overview of this RO is depicted in Figure 1. Additionally, this RO has been enriched automatically with the following annotations:

- concepts (most frequently mentioned in the RO): *Ascii, GPS, file*
- domains (fields of knowledge in which the main concepts are commonly used): *telecommunications*
- frequent expressions (most frequently mentioned noun phrases): *GPS data, gamma software*
- named entities (most frequently mentioned):
  - Places: *Italy*

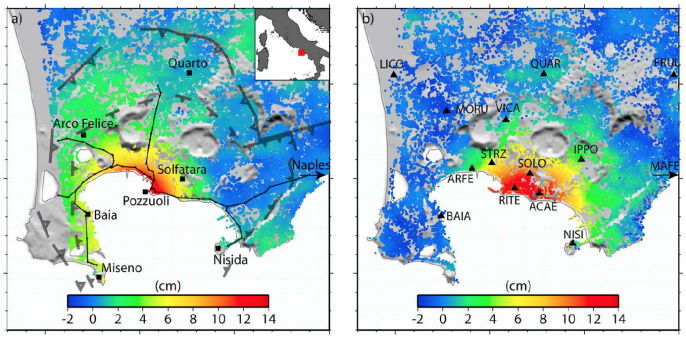


Fig. 1. Research Object Sketch

[1] *http://sandbox.rohub.org/rodl/ROs/InSAR_GPS_Campi_Fregrei_2011_2013/*

[2] See RO types definitions at http://w3id.org/ro/earth-science#

II. Resources

The resources encapsulated by the RO are summarized in table I

TABLE I
Research Object Resources

name	size	type
obs_sar.dat	310.9 KB	Dataset
obs_gps.dat	1.5 KB	Dataset
ASC-DSC-disp.rtf	661.0 B	File
SAR_RESULTS_ASC_SAR_RESULTS_OBS_col.png	3.3 KB	Image
SAR_RESULTS_ASC_SAR_RESULTS_OBS_col.pngw	81.0 B	Image
SAR_RESULTS_DSC_SAR_RESULTS_OBS_col.png	5.9 KB	Image
SAR_RESULTS_DSC_SAR_RESULTS_OBS_col.pngw	81.0 B	Image
Method.rtf	1.9 KB	Document
ASC_DSC_GPS.png	1.5 MB	Sketch

Acknowledgment

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References

[1] The Research Object Management Platform - ROHub http://www.rohub.org/.

[2] K. Belhajjame, O. Corcho, D. Garijo, J. Zhao, P. Missier, D. Newman, R. Palma, S. Bechhofer, E. García Cuesta, J. M. Gómez-Pérez, S. Soiland-Reyes, L. Verdes-Montenegro, D. De Roure, and C. Goble "Workflow-Centric Research Objects: First Class Citizens in Scholarly Discourse", Proceedings of Workshop on the Semantic Publishing, SePublica Crete, Greece 28 May 2012.

[3] Belhajjame K., Zhao J., Garijo D., Gamble M., Hettne K., Palma R., Mina E., Corcho O., Gómez-Pérez J. M., Bechhofer S., Klyne G., Goble C. "Using a suite of ontologies for preserving workflow-centric research objects", Journal of Web Semantics: Science, Services and Agents on the World Wide Web Available online 11 February 2015 ISSN 1570-8268.

[4] Palma R., Corcho O., Gómez-Pérez J. M., Mazurek, C. "ROHub - A Digital Library of Research Objects Supporting Scientists Towards Reproducible Science". In Semantic Publishing Challenge of Proc. Extended Semantic Web Conference (ESWC) Crete, Greece 25-29 May 2014