

# 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)”<sup>1</sup> 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.<sup>2</sup>

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*

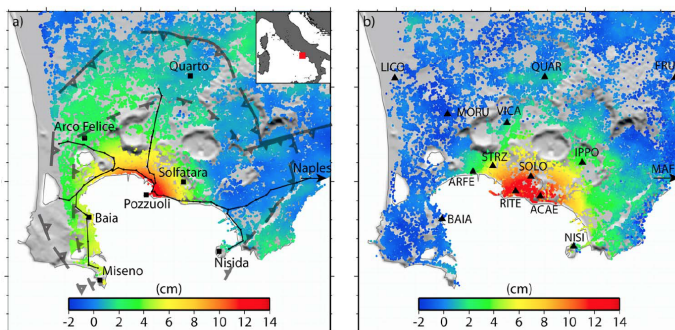


Fig. 1. Research Object Sketch

## 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

<sup>1</sup>[http://sandbox.rohub.org/rodl/ROs/InSAR\\_GPS\\_Campi\\_Flegrei\\_2011\\_2013/](http://sandbox.rohub.org/rodl/ROs/InSAR_GPS_Campi_Flegrei_2011_2013/)

<sup>2</sup>See RO types definitions at <http://w3id.org/ro/earth-science#>