VSM from Taverna - Campi Flegrei 2004-2006

INGV

***Abstract*—**

This RO contains the results of the geodetic inversion of the 2004-2006 InSAR data at Campi Flegrei (Italy) due to the action of a deep magmatic source.

Data can be also found in the following Research Object Link: http://sandbox.rohub.org/rodl/ROs/InSAR$_{C}ampi_{F}legrei_{2}004_{2}006-$ $release/DOI : 10.5072/ro - id.F95NIHF8QA$

The workflow included can be run in the Taverna Runner in the Virtual Research Environment provided by EVER-EST project https://vre.ever-est.eu/supersites/ Link to the executable VSM$_{e}xe_{u}rl$: $http : //box.everest.psnc.pl/f/11ef876776/?raw = 1TheVSM(VolcanoSourceModeling)workflowmodelsgroundde_$ $fitsourceparameters.TheVSMtoolcarriesoutthistaskbyminimi_{2}$ $linearinversioncoreisbyM.Sambridge.Moredetailscanbefoundir$

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Index Terms— geodetic data; unrest; Inversion methods; InSAR; volcanic source

I. Introduction

This document provides a paper-style view of the Research Object (RO) "*VSM from Taverna - Campi Flegrei 2004-2006*"[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 *"Basic", which represents a general aggregation of related resources.* [2].

An overview of this RO is depicted in Figure 1. In summary, the hypothesis of this work is described in [3]; Additionally, this RO has been enriched automatically with the following annotations:

- concepts (most frequently mentioned in the RO): *techniques, points, parameter, PPD, ensemble, model, ensemble, information, search, integrals, algorithm, Modeling, problem*
- domains (fields of knowledge in which the main concepts are commonly used): *mathematics*
- frequent expressions (most frequently mentioned noun phrases): *SAR data, volcano source modeling, The VSM software tool, data inversion*
- named entities (most frequently mentioned):
  - Places: *Monte Carlo*

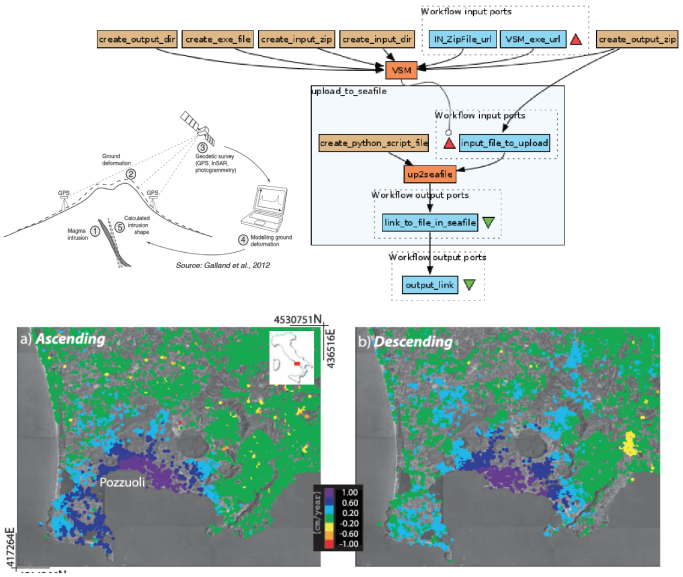


Fig. 1. Research Object Sketch

II. Resources

The resources encapsulated by the RO are summarized in table I

TABLE I
RESEARCH OBJECT RESOURCES

name	size	type
sketch.png	915.0 KB	Sketch
SAR_RESULTS_DSC_SAR_RESULTS_OBS_col.png	4.0 KB	Image
SAR_RESULTS_DSC_SAR_RESULTS_OBS_col.pngw	81.0 B	File
SAR_RESULTS_ASC_SAR_RESULTS_RES_col.png	1.6 KB	Image
SAR_RESULTS_ASC_SAR_RESULTS_RES_col.pngw	81.0 B	File
SAR_RESULTS_ASC_SAR_RESULTS_SIM_col.png	2.0 KB	Image
SAR_RESULTS_ASC_SAR_RESULTS_SIM_col.pngw	81.0 B	File
SAR_RESULTS_DSC_SAR_RESULTS_RES_col.png	3.0 KB	Image
SAR_RESULTS_DSC_SAR_RESULTS_RES_col.pngw	81.0 B	File
SAR_RESULTS_DSC_SAR_RESULTS_SIM_col.png	1.7 KB	Image
Geophysical inversion ....pdf	1.0 MB	Paper
VSM_global_oldlink.t2flow	120.7 KB	Workflow
HOW_TO_USE_VSM_TAVERNA.pdf	338.2 KB	Document

[1] *http://sandbox.rohub.org/rodl/ROs/vsm_tav_cf_2004_06_basic-1/*
[2] See RO types definitions at http://w3id.org/ro/earth-science#
[3] http://box.everest.psnc.pl/f/84dbcc7e00/

ACKNOWLEDGMENT

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[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