SPP Mountainbuilding in 4D Data Management

AlpArray Meeting 29.-30.08.2018

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Data management for the 4D MB SPP

Data management system will be based on the GFZ data services.

Aims:

Make (meta)data searchable and citeable.

Store project results (models, maps, etc.) at a central location.

Foster exchange between research groups.

Present project output.



GFZ Data Services

About/Contact | Impressum

GFZ GERMAN RESEARCH CENTRE FOR GEOSCIENCES

Search the Research Data Repository of GFZ Data Services below and read here how to publish data.

Search (press ESC to close suggestions) Spatial Filter Close Map

Datacenters

CRC 1211 Database
EnMAP
GEOFON Seismic Events
GEOFON Seismic Networks
GFZ German Research Centre for Geosciences
GIPP Geophysical Instrument Pool Potsdam
IGGEM International Centre for Global Earth Mo..
IGETS International Geodynamics and Earth Tid..
ISDC Information System and Data Center
PIK Potsdam Institute for Climate Impact Resea..
SDDB Scientific Drilling Database
SFB806 and CRC806-Database
TERENO
TR32DB Transregio 32 Database
WINS World Strass Man

Categories

▶	earth science	
▶	earth science services	

Top Subjects



Found 6259 datasets.

gms-vis: a web-based visual-analytics approach for input data assessment, job parameter definition and progress monitoring for the GeoMultiSens platform

Authors: Eggert, Daniel; Sips, Mike; Dransch, Doris

<u>Abstract</u>: gms-vis is a web-based implementation of our visual-analytics approach for assessing remote-sensing data. It is implemented based on the GWT framework. Once deployed through a webserver it acts as the user interface for the GeoMulti-Sens (GMS) platform. Within the interface users can more

The Iquique Local Network and PicArray

<u>Authors</u>: Cesca, Simone; Sobiesiak, Monika; Tassara, Arturo et al. <u>Abstract</u>: The Iquique Local Network (ILN), a temporal network of broadband and short period seismic stations has been operating in Northern Chile since 2009. The aim of this installation was to locally densify the permanent seismic installation of the Integrated Plate Boundary Observatory in Chile (IPOC), more

GFZ Data Services

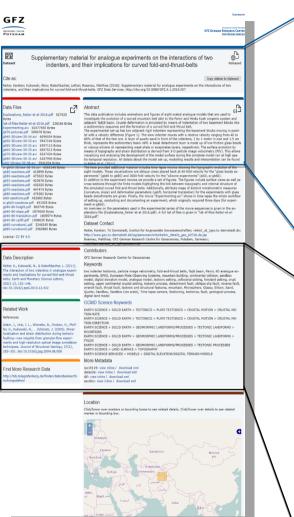
- Research Data Repository for the Geosciences domain
- DOIs for data and software
- Optional: Data description via Data Reports (DOI, internally reviewed)
- OAI-PMH Interface
- Data: real-time data streams (e.g. seismic waveforms, climate stations, observatories), tables, maps, model data (input/output data of climate models, analogue and numerical modelling data),

data products,



Slide: Courtesy of Kirsten Elger (GFZ)

Data access via DOI Landing Pages



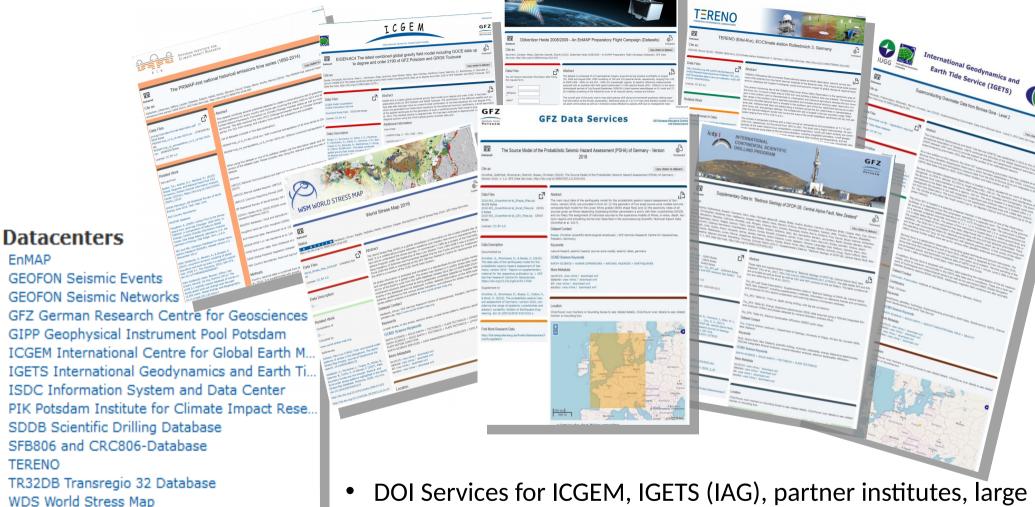
- 4 Supplementary material for analogue experiments on the interactions of two Dataset indenters, and their implications for curved fold-and-thrust-belts Reiter, Karsten; Kukowski, Nina; Ratschbacher, Lothar; Rosenau, Matthias (2016): Supplementary material for analogue experiments on the interactions of two indenters, and their implications for curved fold-and-thrust-belts. GFZ Data Services. http://doi.org/10.5880/GFZ.4.1.2016.007 Data Files This data publication includes animations and figures of eight scaled analogue models that are used to Explanations Reiter-et-al-2016.pdf 527520 investigate the evolution of a curved mountain belt akin to the Pamir and Hindu Kush orogenic system and adjacent Tadjik basin. Crustal deformation is simulated by means of indentation of two basement blocks into list-of-files-Reiter-et-al-2016.pdf 238166 Bytes Experimenting.avi 82477450 Bytes a sedimentary sequence and the formation of a curved fold-and-thrust belt. The experimental set-up has two adjacent rigid indenters representing the basement blocks moving in paralgb70-pictures.pdf 509078 Bytes lel with a velocity difference (Figure 1). The slow indenter moves with a relative velocity ranging from 40 to gb40-3Dview-30-34.avi 6096554 Bytes 80% of that of the fast one. A layer of quartz sand in front of the indenters, 1 by 1 meter in size and 1.5 cm gb50-3Dview-30-33.avi 5947146 Bytes thick, represents the sedimentary basin infill. A basal detachment layer is made up of low-friction glass beads gb55-3Dview-30-32.avi 6397110 Bytes or viscous silicone oil representing weak shale or evaporates lavers, respectively. The surface evolution by gb60-3Dview-30-29.avi 6697512 Bytes means of topography and strain distribution is derived from 3-D particle image velocimetry (PIV). This allows gb70-3Dview-30-30.avi 6247434 Bytes visualizing and analysing the development of the model surface during the complete model run at high spagb80-3Dview-30-31.avi 6187996 Bytes tio-temporal resolution. All details about the model set-up, modelling results and interpretation can be found 60-3Dview-30-38.avi 5941054 Bytes
- Contributors Data Description GEZ German Research Centre for Geosciences Keywords Reiter, K., Kukowski, N., & Ratschbacher, L. (2011). The interaction of two indenters in analogue experitwo indenter tectonics, particle image velocimetry, fold-and-thrust belts, Tajik basin, Pamir, 4D analogue exments and implications for curved fold-and-thrust periments, EPOS, European Plate Observing Systems, mountain building, continental collision, sandbox belts, Earth and Planetary Science Letters. model, digital elevation model, analogue model, tectonic setting, collisional setting, foreland setting, crust 302(1-2), 132-146 setting, upper continental crustal setting, tectonic process, detachment fault, oblique slip fault, reverse fault doi:10.1016/j.epsl.2010.12.002 wrench fault, thrust fault, tectonic and structural features, mountain, Microsphere, Glassy, Silicon, Sand, Quartz, Sandbox, Sandbox (cm scale), Time lapse camera, Sectioning, tectonics, fault, geological process, GCMD Science Keywords Related Work EARTH SCIENCE > SOLID EARTH > TECTONICS > PLATE TECTONICS > CRUSTAL MOTION > CRUSTAL MO Adam, J., Urai, J. L., Wieneke, B., Oncken, O., Pfeif-EARTH SCIENCE > SOLID EARTH > GEOMORPHIC LANDFORMS/PROCESSES > TECTONIC LANDFORMS > fer, K., Kukowski, N., ... Schmatz, J. (2005). Shear localisation and strain distribution during tectonic FARTH SCIENCE > SOLID FARTH > GEOMORPHIC LANDFORMS/PROCESSES > TECTONIC LANDFORMS: faulting-new insights from granular-flow experiments and high-resolution optical image correlation EARTH SCIENCE > SOLID EARTH > GEOMORPHIC LANDFORMS/PROCESSES > TECTONIC PROCESSES techniques. Journal of Structural Geology, 27(2), EARTH SCIENCE > LAND SURFACE > TOPOGRAPHY 283-301. doi:10.1016/j.jsg.2004.08.008 EARTH SCIENCE SERVICES > MODELS > DIGITAL ELEVATION/DIGITAL TERRAIN MODELS iso19115: view inline / download xml Find More Research Data datacite: view inline / download xml http://bib.telegrafenberg.de/finden/datenbanken/fo dif: view inline / download xml

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 Keywords,
 GeoSciML....
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- Related References to papers, reports, data, software, IGSN
- Map

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escidoc: view inline / download xml

DOI Services/ Datacentres



 DOI Services for ICGEM, IGETS (IAG), partner institutes, lar collaborative projects Organisation in Data Centres

Project-specific layout of DOI Landing Pages

GFZ



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Metadata editor

Metadata ▼ Dataset ▼ Publication ▼ About	ut/Help =								
DataCite Metadata									Clear
Resource Information									
DOI (will be generated in the publishing process)			Pu	blisher			Ye	ar	Load
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Contributors (Persons and/or Institutions)									
Lastname	Firstname		Role	Contributor ID	Contributor Identifier (ID)	Affiliation			

Descriptive Metadata

Descriptive Metadata types:

- Contextual Metadata: e.g. transfer function, instruments used, processing steps, resolution (header, readme, data report, data paper, etc.)
 highly variable between the disciplines but key information for data reuse
- Metadata for Data Discovery

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Who? What? When? Where? Why?
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essential for data discovery, DOI registration, etc.: international standards/ schemes across all disciplines, Data Portals, Repositories

General data management scheme

BEFORE publication

Researchers enter metadata.

Metadata is available to everyone and publicly searchable.

Project-specific landing page gives an overview of the available metadata.

Actual data is stored locally NOT publicly accessible (unless the researcher provides a link to his data).

Metadata is linked to other data services (DataCite, B2FIND, EPOS, ...).

AFTER publication

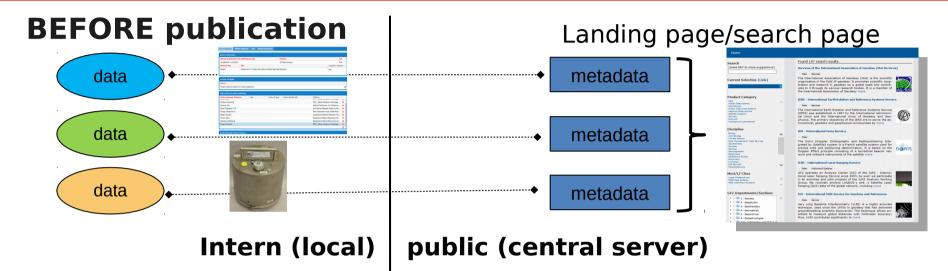
A DOI is created by the GFZ, data becomes citeable.

The data can be stored on a GFZ server.

Metadata links now to the actual data. Metadata remains accessible and searchable over the same landing page as before.

Access to data can be open or restricted.

General data management scheme



AFTER publication

GFZ Data Services

data
(restricted)

metadata

data

GFZ Data Services

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To-Do

Clarify what kind of data will be published.

Which data should be made available publicly/only internally?

Project specific keywords? Metadata dictionary?

Adapt metadata editor to our project.

Creation of a landing page (integration into existing SPP web page).

Collect contributions from members.

More information: http://dataservices.gfz-potsdam.de