



PID graph use in data publication

-The practical implementation IGSNs and RORs

Ketil Koop-Jakobsen

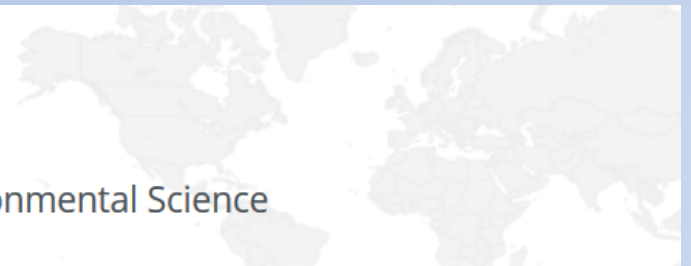
Uwe Schindler

Tina Dohna and



PANGAEA.

Data Publisher for Earth & Environmental Science



PANGAEA- Data publisher



Hosted by:



Short CV:

- **1993:** Foundation as long-term data archive earth & environmental science
- **2001:** Accreditation ICSU WDS World Data Center

Primary Function:

- 1) Receive data-set from scientists and organization
- 2) Data curation by specialized staff, including adding PIDs
- 3) Data publication with DOI

Role in FREYA:

- 1) Expanding implementation PIDs including implementation of emerging PIDs
- 2) Demonstrators for PID usage in Science

PIDs in PANGAEA

PIDs:

<https://doi.pangaea.de/10.1594/PANGAEA.855427>

Bajard, Manon; Sabatier, Pierre; David, Fernand;

Develle, Anne-Lise; Reyss, Jean-Louis; Fanget, Bernard; Sabatier, Pierre

Augustin, Jérôme; Poulouin, Fabien; Poulouin, Jérôme

Malet, Emmanuel; Crouzet, Christian; Poulouin, Jérôme; Arnaud, Fabien

et al. (2015): Erosion record in Lake La Thuile Mastercore. PANGAEA, doi: <https://doi.org/10.1594/PANGAEA.855427>,

***In supplement to:* Bajard, M et al. (2015): Erosion record in Lake La Thuile sediments (Prealps, France): Evidence of montane landscape dynamics throughout the Holocene. *The Holocene*, **26(3)**, 350-364, doi: <https://doi.org/10.1177/0959683615609750>**

of sediment core THU10-Mastercore. PANGAEA, doi: <https://doi.org/10.1594/PANGAEA.855427>,

***In supplement to:* Bajard, M et al. (2015): Erosion record in Lake La Thuile sediments (Prealps, France): Evidence of montane landscape dynamics throughout the Holocene. *The Holocene*, **26(3)**, 350-364, doi: <https://doi.org/10.1177/0959683615609750>**

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Author-PID:



Data-PID:



Article PID:



The screenshot shows the article page for 'Erosion record in Lake La Thuile sediments (Prealps, France): Evidence of montane landscape dynamics throughout the Holocene' by Manon Bajard, Pierre Sabatier, Fernand David, et al. The page includes a title, authors, publication date (December 31, 2015), and an abstract. A red box highlights the article title and authors.

The screenshot shows the ORCID profile for Manon Bajard. It lists her employment at CNRS en Alpes and her works, including the article 'Legacy of early anthropogenic effects on recent lake eutrophication (Lake Bénit, northern French Alps)'. A blue box highlights the ORCID ID and the article title.

The screenshot shows the PANGAEA citation page for the article. It includes the citation text: 'Bajard, Manon; Sabatier, Pierre; David, Fernand; Develle, Anne-Lise; Reyss, Jean-Louis; Fanget, Bernard; Malet, Emmanuel; Arnaud, Daniel; Augustin, Laurent; Crouzet, Christian; Poulouin, Jérôme; Arnaud, Fabien (2015): Chemical composition of sediment core THU10-Mastercore. PANGAEA, doi: <https://doi.org/10.1594/PANGAEA.855427>, *In supplement to:* Bajard, M et al. (2015): Erosion record in Lake La Thuile sediments (Prealps, France): Evidence of montane landscape dynamics throughout the Holocene. *The Holocene*, **26(3)**, 350-364, doi: <https://doi.org/10.1177/0959683615609750>'. A blue box highlights the citation text.

The screenshot shows the IGSN sample page for IEFRA00BA. It includes a QR code, sample name, and description. A yellow box highlights the sample name and description.

874.0 m * Device: Piston corer (PC) * Comment: IGSN THU10-P1: IEFRA00BA; IGSN THU10-I: IEFRA00B

ROR

ROR is the Research Organization Registry, a community-led project to develop an open, sustainable, usable, and unique identifier for



  <https://ror.org/032e6b942>

Search Registry...

 <https://ror.org/032e6b942>

Alfred Wegener Institute for Polar and Marine Research

AWI, ALFRED-WEGENER-INSTITUT, HELMHOLTZ-ZENTRUM FÜR POLAR- UND MEERESFORSCHUNG

WEBSITE

<http://www.awi.de/en/home/>

OTHER IDENTIFIERS

GRID [grid.10894.34](#)

ISNI [0000000110337684](#)

Crossref Funder ID [501100003207](#)

Wikidata [Q536656](#)

GERMANY

FACILITY

RORs in PANGAEA



PANGAEA.

Data Publisher for Earth & Environmental Sciences

Not logged in

Citation:

Schenke, Hans Werner; Gauger, Steffen (2007): AWI
Chart of the Gakkel Ridge (AWI BCGR) (Scale 1:150,000).
Wegener Institute, Helmholtz Centre for Polar and Marine Research
Bremerhaven, PANGAEA,  <https://doi.org/10.1594/PANGAEA.733039>

 <https://ror.org/032e6b942>

Alfred Wegener Institute for Polar and Marine Research
AWI

WEBSITE
<http://www.awi.de/en/home/>

OTHER IDENTIFIERS
GRID grid.10894.34
ISNI 0000000110337684
Crossref Funder ID 501100003207
Wikidata Q536656

GERMANY FACILITY

Always quote above citation when using data! You can download the citation in several formats below.

RIS Citation

Bibtex Citation

Text Citation

Facebook

Twitter

Show Map

Google Earth



Abstract:

The 1 : 1,500,000 AWI Bathymetric Chart of the Gakkel Ridge (AWI BCGR) has been developed from multibeam data measured during the Arctic Mid Ocean Ridge Expedition in 2001 (AMORE 2001, ARK XVIII/2). This expedition was conducted to investigate the Gakkel Ridge in the Arctic

RORs in PANGAEA



The challenges:

MAPPING is challenge

Mapping our registry against the ROR registry had a matching success rate was less than 50%, producing the need for more work on our side in manual matching and result checking

A	B	C	D	E	F	G	H	
	qROR_id	aROR_id	chosen	score	matching_type	substring	ROR_name	
0		https://ror.org/032e6b942	True	1.0	ACRONYM	AWI	Alfred Wegener Institute for	
1	https://ror.org/04ers2y35	https://ror.org/04ers2y35	True	0.92	COMMON TERMS	Bremen University	University of Bremen	
2	https://ror.org/01xtthb56	https://ror.org/01xtthb56	True	1.0	PHRASE	University of Oslo	University of Oslo	
	false negative	h2x0161	https://ror.org/02h2x0161	True	1.0	COMMON TERMS	IFM-GEOMAR	GEOMAR Helmholtz Centre f
4	https://ror.org/01y9bpm73	https://ror.org/01y9bpm73	False	0.86	PHRASE	UniversitÄt GÄttinge	University of GÄttingen	
5	https://ror.org/04v76ef78	https://ror.org/04v76ef78	True	1.0	PHRASE	Christian-Albrechts-Un	Kiel University	
6	https://ror.org/01se4f844	https://ror.org/002gsek34	False	1.0	ACRONYM	IES	Institute for Employment Stu	
7		https://ror.org/00wkygr69	False	0.62	FUZZY	Marine Geology Depar	Maine Department of Marin	
8	https://ror.org/02dvf9b44	https://ror.org/02dvf9b44	True	1.0	PHRASE	Heidelberger Akademi	Heidelberg Academy of Scien	
9	TypeError occured while read	https://ror.org/050draa26	False	0.48	FUZZY	n_g_not_given	NRG Oncology	
10	KeyError - query API error	https://ror.org/05g3dte14	True	1.0	PHRASE	Florida State University	Florida State University	
11	https://ror.org/013meh722	https://ror.org/013meh722	True	1.0	PHRASE	University of Cambridg	University of Cambridge	
12		https://ror.org/01nrxf90	True	1.0	PHRASE	University of Edinburg	University of Edinburgh	
13	https://ror.org/00hqnx08	https://ror.org/00hqnx08	True	1.0	PHRASE	Murmansk Marine Bio	Murmansk Marine Biological	
14		https://ror.org/05j7rz205	False	0.59	COMMON TERMS	Halifax Halifax	Halifax Health Medical Cente	
15	KeyError - query API error	https://ror.org/000pdjy29	False	1.0	HEURISTICS	Wisconsin-Madison Ur	Madison University	
16	KeyError - query API error	https://ror.org/00hj8s172	False	1.0	COMMON TERMS	Lamont-Doherty Earth	Columbia University	
17	https://ror.org/03wt3br81	https://ror.org/05f0yaq80	True	0.93	COMMON TERMS	University of Stockholm	Stockholm University	
18	https://ror.org/00wge5k78	https://ror.org/00wge5k78	False	0.82	HEURISTICS	TromsÅ, University	The Arctic University of Norw	
19		https://ror.org/03zbnzt98	True	1.0	PHRASE	Woods Hole Oceanogr	Woods Hole Oceanographic I	
20	KeyError - auerv API error	https://ror.org/035a68863	True	1.0	PHRASE	Geological Survey	United States Geological Surv	

RORs in PANGAEA



The challenges:

An organization can be involved in a data-set in many ways

...As Author affiliation

...As hosting institute of an experiment

...As funder

Simply substituting Organization name or ID with RORs is not sufficient for building PID graph implementing RORs

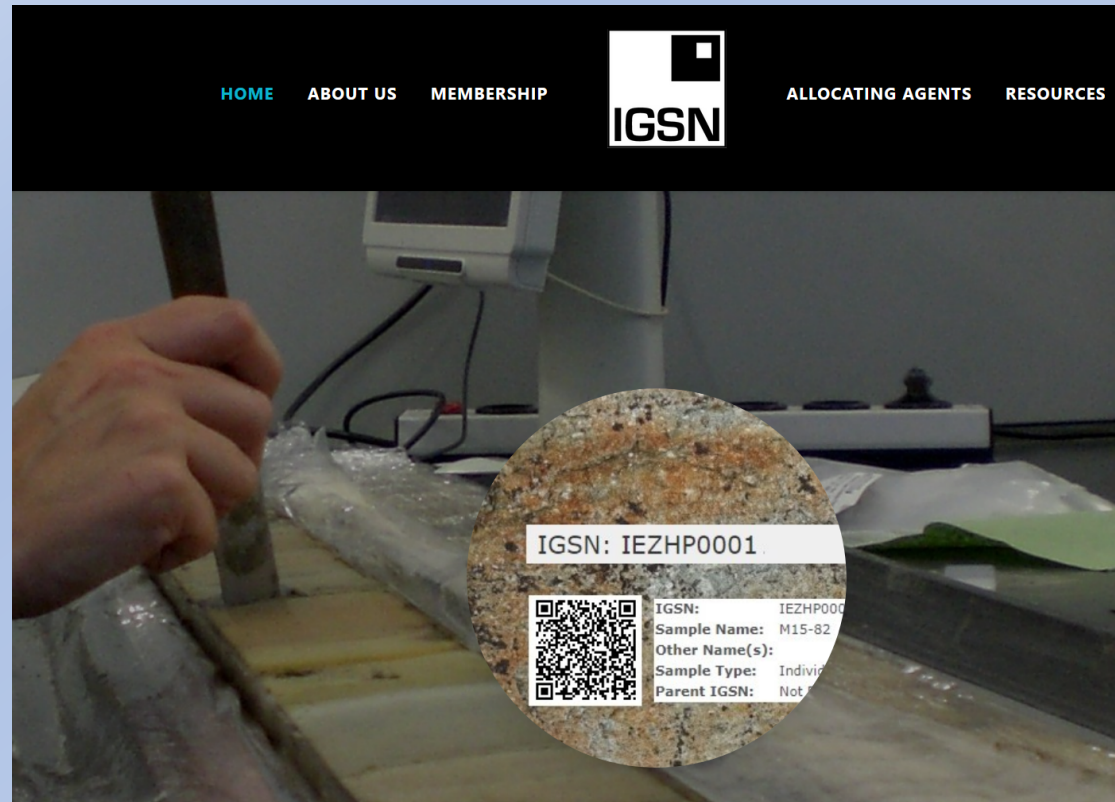
Generally devising rules for how organizations should be credited and referenced in the context of data-set is needed

<https://www.igsn.org/>



IGSN is a **globally unique** and **persistent** identifier for material samples. Samples are a basic element for reference, study, and experimentation in many scientific disciplines, especially in

- natural and environmental sciences
- material sciences
- agriculture
- physical anthropology
- archaeology



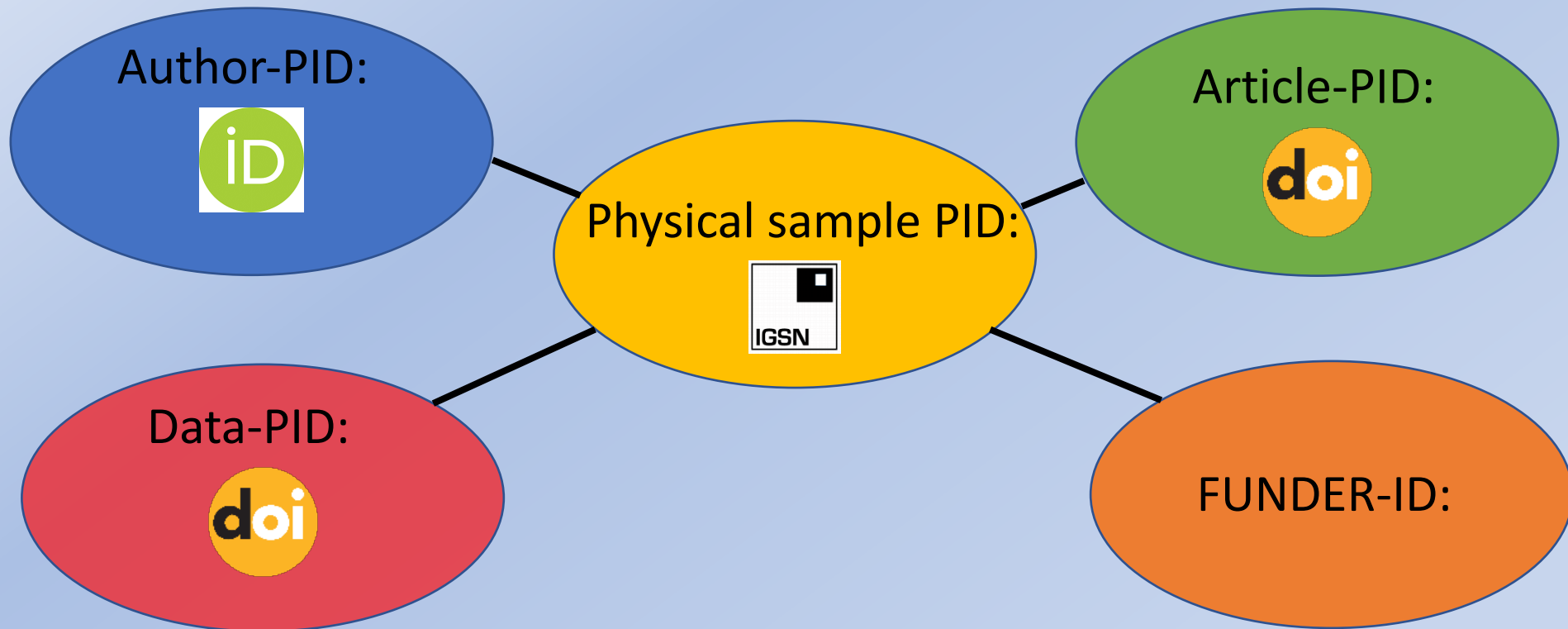
Bremen University also hosts the IODP core repository for the Atlantic Ocean



- More than 150 km sediment core.
- More than 50000 samples are collected annually from the sediment core.
- The cores and samples are assigned a persistent identifier (IGSN).



PANGAEA curate and publish many data coming from the core repository. The IGSN number is implemented in the metadata making a PID-link between data and sample. By also including information from FREYA-partner, DATACITE, a PID-graph can be built.



An IGSN app



GOAL: an app to collect metadata about a specific physical sample by exploring the PID graph

Advanced PID-graph functionality

1. Automated compilation of metadata for a specific IGSN
2. Expanded metadata collection to include sources outside PANGAEA
3. Facilitate access to related IGSNs



FREYA IGSN Barcode scanner



In a nutshell:

Provide the researcher with an easy-to-use tool.

- Scan the barcode and get access to the following metadata:

- 1) Data originating from the sample
- 2) Researcher that has worked on the sample
- 3) Funder information
- 4) Related IGSNs



HOW IT WORKS



- The app is a simple mobile webpage
- It uses the SCANDIT barcode Scanner and runs in any modern browser.
- Once a barcode was scanned, it analyzes the text to find possible IGSN numbers. It mainly detects several formats like hdl.handle.net, igsn.org and other URL types.
- Once it found an IGSN it starts a query to the DataCite JSON REST API using the IGSN as lookup key for dataset relations.
- It formats all related datasets as a citation list using the DataCite citation formatter.
- It extracts all persons/scientists with ORCIDS, other IGSN identifiers and funding references.
- It extracts DOIs of publications



<https://dataportals.pangaea.de/freya/igsn/>



Check it out:

The APP is available for free at

[https://dataportals.pangaea.de/freya/igsn/.](https://dataportals.pangaea.de/freya/igsn/)