

INVENIQ RDM

Maximilian MOSER
Sotirios TSEPELAKIS

Reminder: What are the FAIR principles?

- **Findable**
 - The object should easily be found in searches
- **Accessible**
 - The conditions for access to the object must be clear
- **Interoperable**
 - The object's (meta-)data must be interpretable by others
- **Reusable**
 - The license for reusing the object (once accessed) must be clear

Reminder: What are research data repositories?

Basically just virtual places where researchers can deposit their data to share it with others, in a controlled fashion

For example

The logo for Zenodo, featuring the word 'zenodo' in a bold, lowercase, sans-serif font.

<https://about.zenodo.org/>

Why do we want a repository?

Imagine you're working on a paper for scheduling optimization and want to see how good your approach performs on data already used in the literature.

Get your datasets from e.g.

<http://schedulingresearch.com/>

What is the problem here?

“He’s dead, Jim.”

- Have you ever wanted to reproduce a paper’s results, but couldn’t find the input data anywhere?
- Have you ever followed a link in a paper just to find that it’s dead?
- Will you remember the path on the server where you put your data in half a year?

Isn't this nicer?

The normalised Sentinel-1 Global Backscatter Model, mapping Earth's land surface with C-band microwaves

<https://doi.org/10.1038/s41597-021-01059-7>

The referenced dataset

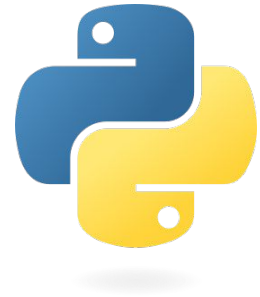
The Sentinel-1 Global Backscatter Model (S1GBM) - Mapping Earth's Land Surface with C-Band Microwaves

<https://doi.org/10.48436/r9fn3-nyd51>

What was that just now?

A customized instance of InvenioRDM, which is...

- a [free and open-source](#) research data repository
- based on Flask and Python
- currently under development by CERN and partners
- documented on <https://inveniordm.docs.cern.ch/>



INVENIO  RDM

But does it help with FAIRness?

...



But does it help with FAIRness?

Yes.

F	F1: (Meta) data are assigned globally unique and persistent identifiers	A DOI is issued to every published record on InvenioRDM.
	F2: Data are described with rich metadata	InvenioRDM's metadata is compliant with DataCite's Metadata Schema minimum and recommended terms, with a few additional enrichments.
	F3: Metadata clearly and explicitly include the identifier of the data they describe	The DOI is a top-level and a mandatory field in the metadata of each record.
	F4: (Meta)data are registered or indexed in a searchable resource	(1) Metadata of each record is indexed and searchable directly in InvenioRDM's search engine immediately after publishing. (2) Metadata of each record is sent to DataCite servers during DOI registration and indexed there.
A	A1: (meta)data are retrievable by their identifier using a standardized communications protocol	Metadata for individual records as well as record collections are harvestable using the OAI-PMH protocol by the record identifier and the collection name. Metadata is also retrievable through the public REST API.
	A1.1: The protocol is open, free and universally implementable	See point A1. OAI-PMH and REST are open, free and universal protocols for information retrieval on the web.
	A1.2: The protocol allows for an authentication and authorisation where necessary	Metadata are publicly accessible and licensed under public domain. No authorization is ever necessary to retrieve it.
	A2: Metadata should be accessible even when the data is no longer available	(1) Data and metadata will be retained for the lifetime of the repository. (2) Metadata are stored in high-availability database servers which are separate to the data itself. (note: recommendations for local implementations should be communicated here)
I	I1: (Meta)data use a formal, accessible, shared, and broadly applicable language for knowledge representation	InvenioRDM uses JSON Schema as internal representation of metadata and offers export to other popular formats such as Dublin Core or MARC-XML.
	I2: (Meta)data use vocabularies that follow the FAIR principles	For certain terms we refer to open, external vocabularies, e.g.: license (Open Definition), funders (FundRef) and grants (OpenAIRE).
	I3: (Meta)data include qualified references to other (meta)data	Each referenced external piece of metadata is qualified by a resolvable URL.
R	R1: (Meta)data are richly described with a plurality of accurate and relevant attributes	Each record contains a minimum of DataCite's mandatory terms, with optionally additional DataCite recommended terms and InvenioRDM's enrichments.
	R1.1: (Meta)data are released with a clear and accessible data usage license	(1) License is one of the mandatory terms in InvenioRDM's metadata, and is referring to an Open Definition license. (2) Data downloaded by the users is subject to the license specified in the metadata by the uploader.
	R1.2: (Meta)data are associated with detailed provenance	(1) All data and metadata uploaded is traceable to a registered InvenioRDM user. (2) Metadata can optionally describe the original authors of the published work.
	R1.3: (Meta)data meet domain-relevant community standards	InvenioRDM is not a domain-specific repository, yet through compliance with DataCite's Metadata Schema, metadata meets one of the broadest cross-domain standards available.

Demo Time!



<https://test.researchdata.tuwien.ac.at/>

Frontpage



The screenshot shows the frontpage of the TU Data Repository. At the top, there is a navigation bar with 'Log out', 'HOME', 'MY DASHBOARD', and 'SETTINGS'. A search bar is located in the center of the header. Below the header, a welcome message is displayed, followed by a row of four icons: 'Deposit', 'Search', 'FAQ', and 'Contact'. The 'Recent Uploads' section lists several datasets, each with a title, author information, a 'Deposit' button, and a 'View' button. The datasets listed are: 'ORCAS', 'FAIR for Sensitive Data', 'RT-Percept Sun Temple', 'RT-Percept Sibenik Cathedral', and 'RT-Percept Lumberyard Bistro'. Each dataset entry includes a brief description and the upload date. At the bottom of the page, there is a footer with logos for 'powered by INVENIO RDM' and 'enabled by FAIR DATA AUSTRIA', along with links for 'POLICIES', 'TERMS OF USE', 'DATA PROTECTION DECLARATION', and 'CONTACT'.

<https://researchdata.tuwien.ac.at>

Search



Log out HOME MY DASHBOARD SETTINGS TU WIEN

clef

1 result(s) found Best match

Versions
 View all versions

Access status
 Open

Resource types
 Dataset

Help
Search guide

The CLEF-IP 2009 Test Collection
Profr, Florina Roda, Giovanni Zenc, Veronika
CLEF-IP: Cross-Language Evaluation Forum - Intellectual Property The CLEF-IP track was launched in 2009 to investigate IR techniques for patent retrieval and is part of the CLEF 2009 evaluation campaign. The track utilizes a collection of more than 1.3M patent documents (2.8 million files) derived from EPO (European Patent Office) sources. The collection contains d...
Updated on November 30, 2021

The CLEF-IP 2011 Test Collection
Profr, Florina Harbury, Allan Zenc, Veronika
CLEF-IP: Cross-Language Evaluation Forum - Intellectual Property The CLEF-IP track ran from 2009 to 2013 and aimed to investigate IR techniques for patent retrieval. The track utilizes a collection of more than 1.3M patent documents (2.8 million files) derived from EPO (European Patent Office) sources and EuroPCT Applications (more than 400K doc...
Updated on November 30, 2021

The CLEF-IP 2010 Test Collection
Profr, Florina Tait, John
CLEF-IP: Cross-Language Evaluation Forum - Intellectual Property The CLEF-IP track was launched in 2009 to investigate IR techniques for patent retrieval and is part of the CLEF 2010 evaluation campaign. The track utilizes a collection of more than 1.3M patent documents (~2.8 million files) derived from EPO (European Patent Office) sources, wh...
Updated on November 30, 2021

The CLEF-IP 2013 Test Collection
Profr, Florina Harbury, Allan Liska, Mihai
CLEF-IP: Cross-Language Evaluation Forum - Intellectual Property The CLEF-IP track ran from 2009 to 2013 and aimed to investigate IR techniques for patent retrieval. The track utilizes a collection of more than 1.3M patent documents (2.8 million files) derived from EPO (European Patent Office) sources and EuroPCT Applications (more than 400K doc...
Updated on November 30, 2021

The CLEF-IP 2012 Test Collection
Profr, Florina Harbury, Allan Liska, Mihai
CLEF-IP: Cross-Language Evaluation Forum - Intellectual Property The CLEF-IP track ran from 2009 to 2013 and aimed to investigate IR techniques for patent retrieval. The track utilizes a collection of more than 1.3M patent documents (2.8 million files) derived from EPO (European Patent Office) sources and EuroPCT Applications (more than 400K doc...
Updated on November 30, 2021

The MARECIREC data set
Profr, Florina
MARECIREC: The MARECIREC REsearch Collection / The Information REtrieval Conference Collection MARECIREC is a basic collection of over 19 million patent applications and granted patents in a unified file format normalized from EP, WO, US, and JP sources, spanning a range from 1976 to June 2008. MARECIREC is intended as raw material for rese...
Updated on November 30, 2021

powered by **INVENIO** RDM enabled by **FAIR DATA AUSTRIA**

POLICIES TERMS OF USE DATA PROTECTION DECLARATION CONTACT

Search (External: DataCite)



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sgbm Search

2 Works

The Sentinel-1 Global Backscatter Model (S1GBM) - Polar Extension
Bernhard Bauer-Marschallinger, Senmao Cao, Claudio Navacchi, Vahid Freeman, Felix Reuß, Dirk Geudtner, Björn Rommen, Francisco Ceba Vega, Paul Snoei, Evert Attema, Christoph Reimer & Wolfgang Wagner
Dataset published via TU Wien
This dataset was generated by the Remote Sensing Group of the TU Wien Department of Geodesy and GeoInformation (<https://mrs.geo.tuwien.ac.at/>), within a dedicated project by the European Space Agency (ESA). Rights are reserved with ESA. Open use is granted under the CC BY 4.0 license. With the recently published Sentinel-1 Global Backscatter Model (S1GBM) Version 1.0, we provide a new perspective on Earth's land surface through normalised microwave backscatter maps from Sentinel-1's Synthetic Aperture Radar (SAR)..

0 No citations were reported. No usage information was reported.

<https://doi.org/10.48436/rgfn3-nyd5t> **Cite**

The Sentinel-1 Global Backscatter Model (S1GBM) - Mapping Earth's Land Surface with C-Band Microwaves
Bernhard Bauer-Marschallinger, Senmao Cao, Claudio Navacchi, Vahid Freeman, Felix Reuß, Dirk Geudtner, Björn Rommen, Francisco Ceba Vega, Paul Snoei, Evert Attema, Christoph Reimer & Wolfgang Wagner
Dataset published via TU Wien
This dataset was generated by the Remote Sensing Group of the TU Wien Department of Geodesy and GeoInformation (<https://mrs.geo.tuwien.ac.at/>), within a dedicated project by the European Space Agency (ESA). Rights are reserved with ESA. Open use is granted under the CC BY 4.0 license. With this dataset publication, we open up a new perspective on Earth's land surface, providing a normalised microwave backscatter map from spaceborne Synthetic Aperture Radar (SAR) observations. The Sentinel-1 Global Backscatter..

0 No citations were reported. No usage information was reported.

<https://doi.org/10.48436/mzdtv-gqbg1> **Cite**

Registration Year

- 2022 1
- 2020 1

Resource Types

- Dataset 2

Affiliations

- European Space Agency 2
- TU Wien 2

About DataCite
What we do
Governance
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Steering groups
Staff
Job opportunities

Services
Assign DOIs
Metadata search
Event data
Profiles
regdata
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Statistics
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Content negotiation
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Community
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Partners
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Roadmap

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Privacy policy
● All Systems Operational.

Search (External: Google)



Google

Zuletzt aktualisiert Download-Format Nutzungsrechte Thema Kostenlos Gespeicherte Datensätze

2 Datensätze gefunden

The Sentinel-1 Global Backscatter Model (S1GBM) - Mapping Earth's Land...
researchdata.tuwien.ac.at
researchdata.dl.hpc.tuwien.ac.at
+1Mehr
Aktualisiert: Aug 23, 2021

The Sentinel-1 Global Backscatter Model (S1GBM) - Polar Extension
researchdata.tuwien.ac.at
Aktualisiert: May 19, 2022

Sie sehen nicht das erwartete Ergebnis?
[Hier erfahren Sie, wie Sie unserem Index neue Datensätze hinzufügen können.](#)

The Sentinel-1 Global Backscatter Model (S1GBM) - Polar Extension
[Mehr unter researchdata.tuwien.ac.at](#)

Eindeutige Kennzeichnung
<https://doi.org/10.48436/r9fn3-nyd51>

Datensatz aktualisiert
May 19, 2022

Datenpool bereitgestellt von
[Vienna University of Technology](#)
[DataCite](#)

Autoren
Bernhard Bauer-Marschallingner, Senmao Cao; Claudio Navacchi; Vahid Freeman; Felix Reuß; Dirk Geudtner; Björn Rommen; Francisco Ceba Vega; Paul Snoeij; Evert Attema; Christoph Reimer; Wolfgang Wagner

Lizenz
[Attribution 4.0 \(CC BY 4.0\)](#)
Lizenzinformationen wurden automatisch abgeleitet

Datenpool finanziert von
[European Space Agency](#)

Beschreibung
This dataset was generated by the Remote Sensing Group of the TU Wien Department of Geodesy and Geoinformation (<https://mrs.geo.tuwien.ac.at/>), within a dedicated project by the European Space Agency (ESA). Rights are reserved with ESA. Open use is granted under the CC BY 4.0 license. With the recently published Sentinel-1 Global Backscatter Model (S1GBM) Version 1.0, we provide a new perspective on Earth's land surface through normalised microwave backscatter maps from Sentinel-1's Synthetic Aperture Radar (SAR) observations. This first extension of the S1GBM, V1.1, providing an additional set of normalised mosaics covering the northern and southern polar zones and sea-ice regions. V1.1 ingests Medium-resolution data (GRDM) from Sentinel-1's Extra Wide (EW) swath mode in HV- and HH-polarisation at a pixel sampling of 40m. To reflect cold and warm conditions in the high...

Record Landing Page



The screenshot displays a record landing page for a dataset titled "European Sentinel-1 Forest Type and Tree Cover Density Maps". The page is structured as follows:

- Header:** Includes navigation links for "HOME" and "MY DASHBOARD", and the TU WIEN logo.
- Metadata:** Shows the publication date as "Published January 29, 2023" and the version as "1.0.0".
- Title:** "European Sentinel-1 Forest Type and Tree Cover Density Maps".
- Citation:** Provides the citation: "Friedrich, A., Cui, S., & Hagen, W. (2023). European Sentinel-1 Forest Type and Tree Cover Density Maps v1.0.0 (Data set). TU Wien. [https://doi.org/10.25727/1.18424](#)".
- Description:** A detailed paragraph explaining the dataset's origin from the TU Wien Department of Geodesy and Geoinformation, its purpose for forest monitoring, and its technical specifications (Sentinel-1 SAR data, 10m resolution, 2015-2022).
- Dataset Record:** A section detailing the data's format (GeoTIFF), resolution (10m), and geographic extent (Europe).
- Code Availability:** A section stating that the code is available on GitHub.
- Acknowledgements:** A section mentioning the funding source, the Austrian Research Promotion Agency (FFG).
- Files:** A table listing the dataset's files, categorized by "Forest Type" and "Tree Cover Density".
- Names:** A table listing the dataset's names, categorized by "Forest Type" and "Tree Cover Density".
- Additional details:** A section containing "RELATED WORKS" and "REFERENCES".
- Footer:** Includes logos for "INTEROP-DIGITAL" and "EUROPEAN COMMISSION", and a footer with "POLICIES", "TERMS OF USE", "DATA PROTECTION DECLARATION", and "CONTACT".

File Name	Size
ForestType	1.8 MB
TreeCoverDensity	679.2 MB
ForestType	1.8 MB
TreeCoverDensity	679.2 MB
ForestType	1.8 MB
TreeCoverDensity	679.2 MB
ForestType	1.8 MB
TreeCoverDensity	679.2 MB

Record Landing Page



Published January 19, 2021 | Version 1.0 Default Open

European Sentinel-1 Forest Type and Tree Cover Density Maps

Dostalova, Alena Cao, Senmao ^{1,2} Wagner, Wolfgang ^{1,2} Show affiliations

Citation Style APA

Dostalova, A., Cao, S., & Wagner, W. (2021). European Sentinel-1 Forest Type and Tree Cover Density Maps (1.0) [Data set]. TU Wien. <https://doi.org/10.48436/66f5-11b75>

Description

This dataset was generated by the TU Wien Department of Geodesy and Geoinformation.

European Sentinel-1 forest type and tree cover density maps represent first continental-scale forest layers based on Sentinel-1 C-Band Synthetic Aperture Radar (SAR) backscatter data. For the year 2017 they cover the majority of European continent with 10 m and 100 m sampling for forest type and tree cover density, respectively. The maps were derived using the method described in <https://www.tandfonline.com/doi/full/10.1080/01431161.2018.1479788>.

The forest type map shows the dominant forest type class (coniferous, broadleaf). Tree cover density map shows the percentage of forest canopy cover within the 100 m pixel.

Please be referred to our peer-reviewed article at <https://doi.org/10.3390/rs13030337> for details and accuracy assessment across Europe.

Dataset Record

The forest type and tree cover density maps are sampled at 10 m and 100 m pixel spacing respectively, georeferenced to the Equi7Grid and divided into square tiles of 100km extent ("11"-tiles). With this setup, the forest maps consist of 728 tiles over the European continent, with data volumes of 3.12 GB and 378.3 MB.

The tiles' file-format is a LZW-compressed GeoTIFF holding 16-bit integer values, with tagged metadata on encoding and georeference. Compatibility with common geographic information systems as QGIS or ArcGIS, and geodata libraries as GDAL is given.

In this repository, we provide each forest map as tiles, whereas two zipped dataset-collections are available for download below.

Code Availability

For the usage of the Equi7Grid we provide data and tools via the python package available on GitHub at <https://github.com/TUW-Geo/Equi7Grid>. More details on the grid reference can be found in <https://www.sciencedirect.com/science/article/pii/S098300414001629>.

Acknowledgements

The computational results presented have been achieved using the Vienna Scientific Cluster (VSC).

Published January 19, 2021 | Version 1.0 Default Open

European Sentinel-1 Forest Type and Tree Cover Density Maps

Dostalova, A., Cao, S., & Wagner, W. (2021). European Sentinel-1 Forest Type and Tree Cover Density Maps (1.0) [Data set]. TU Wien. <https://doi.org/10.48436/66f5-11b75>

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Files

File Name	Size
ForestType	3.12 GB
TreeCoverDensity	378.3 MB

Additional details

Related works

References

Metadata

Additional details

Downloaded on 12/11/2023 10:10:10 AM

Record Landing Page



Published January 19, 2021 | Version 1.0

European Sentinel-1 Forest Type and Tree Cover Density Maps

Dostalova, Alena¹; Cao, Senmao^{1,2}; Wagner, Wolfgang^{1,2}

Citation Style: APA

Dostalova, A., Cao, S., & Wagner, W. (2021). European Sentinel-1 Forest Type and Tree Cover Density Maps (1.0) [Data set]. TU Wien. <https://doi.org/10.48436/66f5-11b75>

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Files

ForestType.zip

- ForestType.zip
- ForestType
 - 2017_FOREST-CLASSES_EU010M_E029N009T1.tif 1.0 MB
 - 2017_FOREST-CLASSES_EU010M_E029N101T1.tif 670.2 kB
 - 2017_FOREST-CLASSES_EU010M_E030N009T1.tif 4.4 MB
 - 2017_FOREST-CLASSES_EU010M_E030N101T1.tif 7.5 MB
 - 2017_FOREST-CLASSES_EU1010M_E030N111T1.tif 8.0 MB

Files (3.5 GB)

Name	Size
ForestType.zip	3.1 GB
TreeCoverDensity.zip	378.3 MB

Record Landing Page



Published January 19, 2021 | Version 1.0

European Sentinel-1 Forest Type and Tree Cover Density Maps

Dostalova, Alena¹; Cao, Senmao^{1,2}; Wagner, Wolfgang^{1,2}

Citation Style: APA

Dostalova, A., Cao, S., & Wagner, W. (2021). European Sentinel-1 Forest Type and Tree Cover Density Maps (1.0) [Data set]. TU Wien. <https://doi.org/10.48436/8k6fs-11b75>

Description

This dataset was generated by the TU Wien Department of Geodesy and Geoinformation.

European Sentinel-1 forest type and tree cover density maps represent first continental-scale forest layers based on Sentinel-1 C-Band Synthetic Aperture Radar (SAR) backscatter data. For the year 2017 they cover the majority of European continent with 10 m and 100 m sampling for forest type and tree cover density, respectively. The maps were derived using the method described in <https://www.tandfonline.com/doi/full/10.1080/01431161.2018.1479788>.

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European Sentinel-1 forest type and tree cover density maps represent first continental-scale forest layers based on Sentinel-1 C-Band Synthetic Aperture Radar (SAR) backscatter data. For the year 2017 they cover the majority of European continent with 10 m and 100 m sampling for forest type and tree cover density, respectively. The maps were derived using the method described in <https://www.tandfonline.com/doi/full/10.1080/01431161.2018.1479788>.

The forest type map shows the dominant forest type class (coniferous, broadleaf). Tree cover density map shows the percentage of forest canopy cover within the 100 m pixel.

Please be referred to our peer-reviewed article at <https://doi.org/10.3390/rs13030337> for details and accuracy assessment across Europe.

Dataset Record

The forest type and tree cover density maps are sampled at 10 m and 100 m pixel spacing respectively, georeferenced to the Equi7Grid and divided into square tiles of 100km extent (11-tiles). With this setup, the forest maps consist of 728 tiles over the European continent, with data volumes of 3.12 GB and 378.3 MB.

The tiles' file-format is a LZW-compressed GeoTIFF holding 16-bit integer values, with tagged metadata on encoding and georeference. Compatibility with common geographic information systems as QGIS or ArcGIS, and geodata libraries as GDAL is given.

In this repository, we provide each forest map as tiles, whereas two zipped dataset-collections are available for download below.

Code Availability

For the usage of the Equi7Grid we provide data and tools via the python package available on GitHub at <https://github.com/TUW-Geo/Equi7Grid>. More details on the grid reference can be found in <https://www.sciencedirect.com/science/article/pii/S098300414001629>.

Acknowledgements

The computational results presented have been achieved using the Vienna Scientific Cluster (VSC).

Versions

Version 1.0
10.48436/8k6fs-11b75 Jan 19, 2021

Details

DOI
[10.48436/8k6fs-11b75](https://doi.org/10.48436/8k6fs-11b75)

Resource type

Dataset

Publisher

TU Wien

Formats

application/x-geotiff

Rights

Creative Commons Attribution
Share Alike 4.0 International

Export

JSON

Files

ForestType.zip

ForestType.zip

ForestType

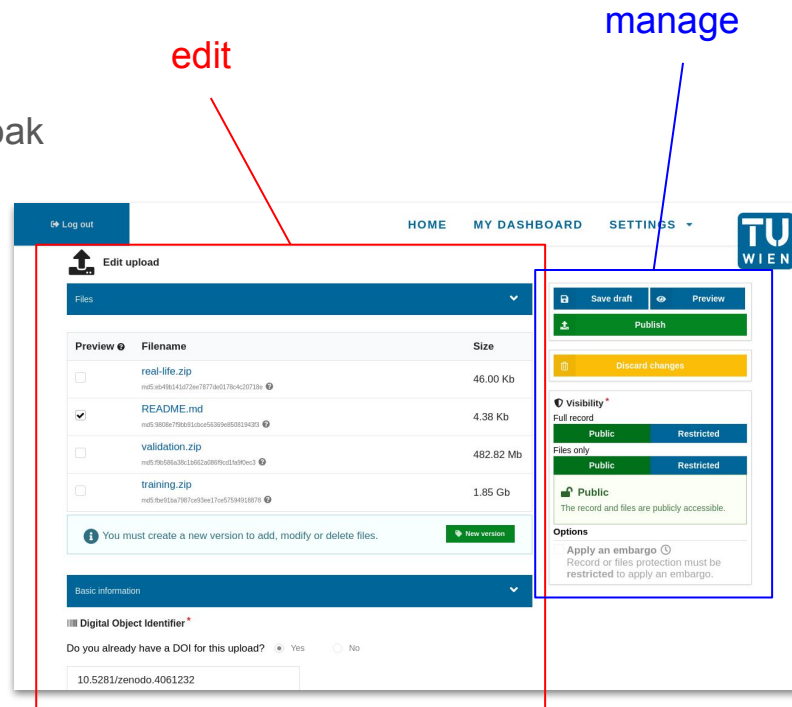
- 2017_FOREST-CLASSES_EU010M_E029N009T1.tif 1.0 MB
- 2017_FOREST-CLASSES_EU010M_E029N101T1.tif 670.2 kB
- 2017_FOREST-CLASSES_EU010M_E030N009T1.tif 4.4 MB
- 2017_FOREST-CLASSES_EU010M_E030N101T1.tif 7.5 MB
- 2017_FOREST-CLASSES_EU010M_E030N111T1.tif 8.0 MB

Files (3.5 GB)

Name	Size	Preview	Download
ForestType.zip	3.1 GB	<input type="button" value="Preview"/>	<input type="button" value="Download"/>
TreeCoverDensity.zip	378.3 MB	<input type="button" value="Preview"/>	<input type="button" value="Download"/>

Access Restrictions

- Authentication
 - Local login vs OAuth2 (resp. OpenID Connect)
 - Get other services integrated, e.g. Keycloak
=> integrates TU SSO
 - Sessions for browsers, tokens for cURL
- Authorization
 - Different permissions for different actions
 - read, read_files, create, edit, manage, ...
 - Role-based access (e.g. role “trusted-user”)
 - Share-by-Link (like Google Docs)



The screenshot shows the 'Edit upload' interface for a file named 'real-life.zip'. The interface includes a navigation bar with 'Log out', 'HOME', 'MY DASHBOARD', and 'SETTINGS'. The main content area is divided into several sections:

- Files:** A table listing uploaded files with columns for 'Preview', 'Filename', and 'Size'. The 'real-life.zip' file is selected. Other files include 'README.md', 'validation.zip', and 'training.zip'.
- Basic information:** A section containing a 'Digital Object Identifier' (DOI) field with the value '10.5281/zenodo.4061232'.
- Visibility:** A section with 'Public' and 'Restricted' options, currently set to 'Public'.
- Options:** A section with an 'Apply an embargo' option, currently set to 'No'.

Annotations in the image include a red box around the file list and 'Basic information' section, with a red arrow pointing to the word 'edit' above it. A blue box around the 'Visibility' and 'Options' sections, with a blue arrow pointing to the word 'manage' above it.

Share by Link

Can be used to share access to restricted datasets:

This screenshot shows a dataset page with a red box highlighting the 'Files' section. A large, semi-transparent red box with white text is overlaid on the page, indicating that the record is publicly accessible but the files are restricted to users with access. The background page shows the dataset title 'Problem Instances for Exact and Meta-Heuristic Approaches for Unrelated Parallel Machine Scheduling', its citation, and a description. A 'Files' dropdown menu is open, showing a 'Restricted' status.

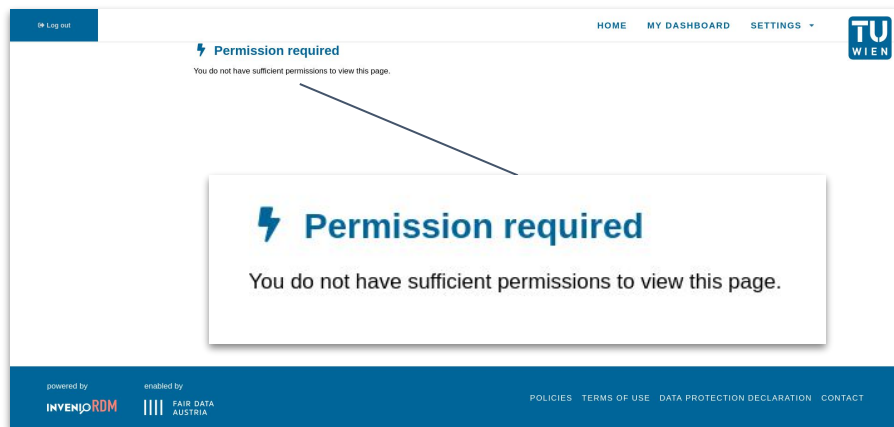
Normal Access

This screenshot shows the same dataset page accessed via a secret link. A red box highlights the 'Files' section, which now displays the actual files available for download, including 'readme.txt', 'readme.zip', 'instances.txt', 'instances.zip', 'validation.zip', and 'training.zip'. The 'Restricted' warning is no longer present. The page layout is identical to the 'Normal Access' view, showing the dataset title, citation, and description.

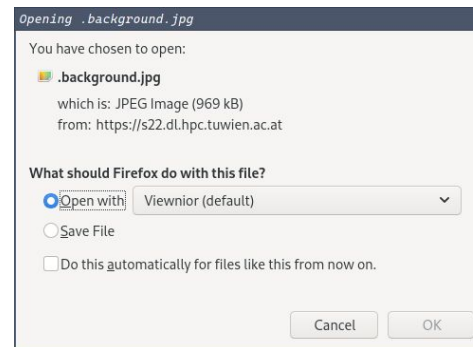
Access via Secret Link

Share by Link

Can also be used to enable double-blind peer reviews:



Metadata cannot be accessed...



... but files can be downloaded

TUW Research Data vs InvenioRDM

Customized with our own modules: <https://gitlab.tuwien.ac.at/fairdata>

- [Invenio-Theme-TUW](#)
 - TU Wien corporate design, and extra pages
- [Invenio-Config-TUW](#)
 - TU Wien SSO for authentication
 - customized permissions
 - tweaked inner workings
- [Invenio-Utilities-TUW](#)
 - additional CLI commands for administration

Summary: Core InvenioRDM features

- Record Management
 - Metadata based on [DataCite kernel 4.3](#)
 - File deposit
 - DOI minting on publication
 - Record Versioning
 - Export of metadata in other formats (e.g. Dublin Core, OAI-PMH, ...)
 - Access sharing (e.g. via secret link, similar to Google Docs)
- Communities
- Modularity and customizability
- Growing developer community (on [Discord](#))

Bonus tips for depositing data

- **Rights:** Make sure you have the rights to upload the data
 - check back with all involved creators
 - agree on that before even creating the dataset
- **Longevity:** Choose proper file formats for your uploads
 - simple and open standards over proprietary niche formats
 - c.f. [Library of Congress recommendations](#)
- **FAIRness:** Test your record's FAIRness with tools
 - e.g. [F-UJI](#)

And an idea for posters!

TU WIEN VIENNA UNIVERSITY OF TECHNOLOGY
 DEPARTMENT OF GEODESY AND GEOMATIC ENGINEERING
 RESEARCH GROUP FOR ENVIRONMENTAL AND SECURITY SENSING

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Sentinel-1 Global Backscatter Model
Extension over the polar zones and sea ice regions
 ESA LPS May 2022 Bonn

1 the S1GBM v1.0: land surface
 C-band radar reflectivity over global land surface

With the recently published Sentinel-1 Global Backscatter Model (S1GBM) version 1.0 [1], we provide a new perspective on Earth's land surface through normalized microwave backscatter maps from Sentinel-1's Synthetic Aperture Radar (SAR) observations. The S1GBM v1.0 describes Earth's land surface for the period 2016-17 by its mean C-band radar cross section in VV and VH polarization at a 10m sampling, giving a high quality perspective on **surface structure and patterns**. Supporting not only the **design & verification of upcoming radar sensors** (including Sentinel-1C), the advanced S1GBM data also serves **land cover classification** and **delineation of vegetation and soil types**, as well as **water body mapping**.

Global Backscatter Maps of S1GBM global VV and VH maps

S1GBM v1.0: Land Surface
 Mean C-band radar cross section (σ⁰) per 10m sampling
 [1] Global Backscatter Maps of S1GBM global VV and VH maps

2 Land cover signature
 C-band backscatter distribution per land cover

Land cover signature maps showing backscatter distribution per land cover class. Includes a table of backscatter ranges for various land cover types.

3 S1GBM v1.1: polar areas
 C-band backscatter over polar areas and sea ice

S1GBM v1.1 [2] is the **polar extension** to v1.0, ingesting Medium-resolution data (GRGM) from Sentinel-1's Extra View (EV) swath mode in VV- and HH-polarization, at a post sampling of 400m. To reflect cold and warm conditions in the high latitudes, and in particular to capture the varying snowpack extents along Greenland's coastline, data collections are sorted to the months **January** and **July** of the period 2016-17, respectively.

S1GBM v1.1: Polar Areas
 C-band backscatter maps for January and July. Includes a table of backscatter ranges for various land cover types in the polar regions.

EW GRGM
 400m sampling
 3000m "3" -lines
 VV & VH polarization
 January and July composite
 1x1x2 vvs

eodc Copernicus

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30°N
 0°
 30°S
 60°S
 0°E
 60°N

<https://doi.org/10.48436/n2d1v-gqb91>

[1]

[earchdata.tuwien.ac.at/records/n2d1v-gqb91](https://gea.tuwien.ac.at/records/n2d1v-gqb91)

Future work

- Integration with our other services, e.g.
 - the DBRepo
 - our CRIS system
 - our maDMP tool: <https://damap.org/>
- Account creation workflow for externals
- Virus scanning on upload
- Preservation/archival of suitable uploaded files
- Factor in the uploaded files' contents for search
- Etc. – see also <https://inveniosoftware.org/products/rdm/roadmap/>

Thank you for your attention!

Questions?

