

The DataCite Metadata Schema

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**Workshop: Metadata and Persistent Identifiers for Social and
Economic Data**
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DataCite and DOI

- Growing demand to make data citable.
- DataCite is an international consortium whose aims are
 - establish easier access to research data on the Internet
 - increase acceptance of research data as legitimate, citable contributions to the scholarly record
 - support data archiving that will permit results to be verified and re-purposed for future study.
- The DOI system offers long-term persistence and accessibility of data.
- The IDF requires metadata for each object registered with a DOI.



DataCite and Metadata I

- Metadata make data discoverable.
- Long-term maintenance of metadata is an important part of the persistence of an identifier.
- DataCite's infrastructure includes
 - **Metadata Schema**, well-formed, right-sized, and suitable for all disciplines and resource types, and
 - **Metadata Store (MDS)**, which combines the DOI registration with the storage of metadata.



DataCite and Metadata II

- Schema is inspired by Dublin Core.
- Current preferred version: v2.2;
v2.3 is to be released shortly
- Core value of the DataCite Metadata Schema:
Linking between data and related objects.
- Future vision:
Links between all related publications and objects.



DataCite Metadata Schema

Mandatory Properties

- Identifier (*with type attribute*)
- Creator (*with type and nameIdentifier attributes*)
- Title (*with optional type attribute*)
- Publisher
- PublicationYear

- Citation:
Creator (PublicationYear): Title. Publisher. Identifier

Creator (PublicationYear): Title. Publisher. Identifier

Dataset:

Kuhlmann, H et al. (2009):

Age models, iron intensity, magnetic susceptibility records and dry bulk density of sediment cores from around the Canary Islands. PANGAEA - Data Publisher for Earth & Environmental Science.

doi:[10.1594/PANGAEA.727522](https://doi.org/10.1594/PANGAEA.727522),

Is supplement to this article:

Kuhlmann, Holger; Freudenthal, Tim; Helmke, Peer; Meggers, Helge

(2004): Reconstruction of paleoceanography off NW Africa during the last 40,000 years: influence of local and regional factors on sediment accumulation.

Marine Geology, 207(1-4), 209-224,

doi:[10.1016/j.margeo.2004.03.017](https://doi.org/10.1016/j.margeo.2004.03.017)

DataCite Metadata Schema

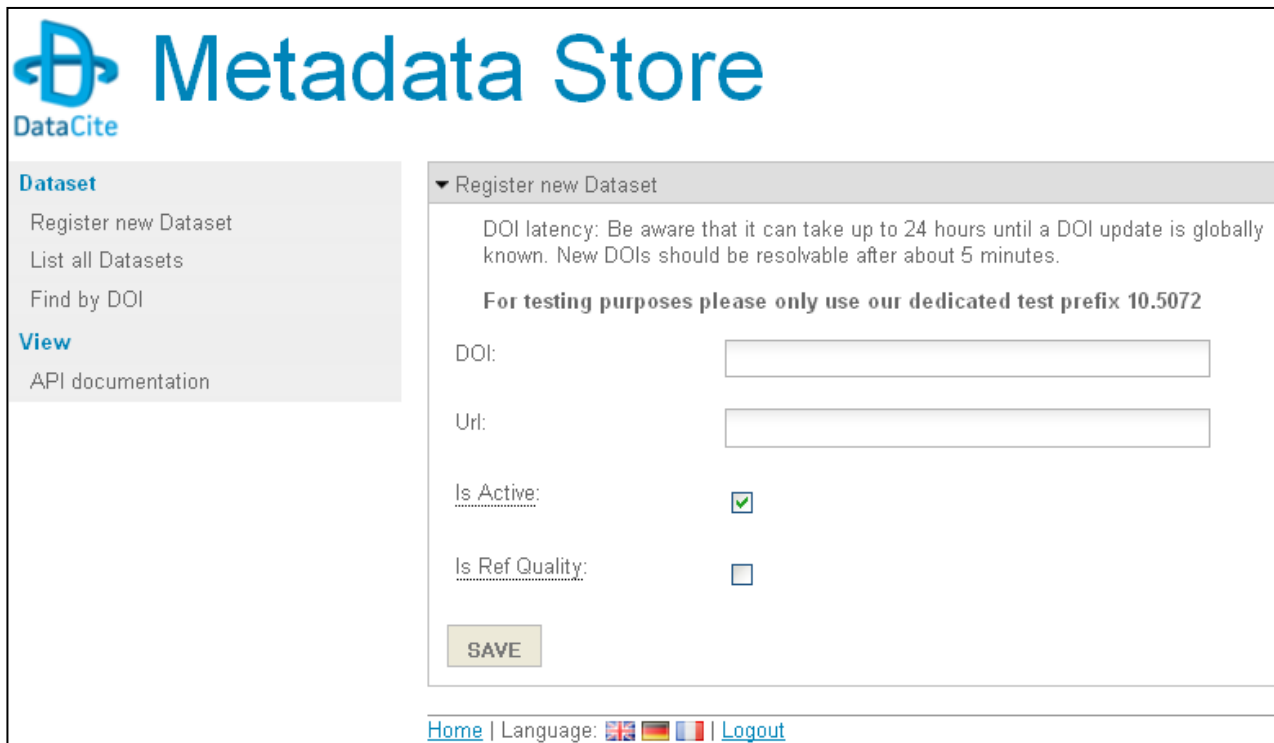
Optional Properties

- Subject (*with scheme attribute*)
- Contributor (*with type and nameIdentifier attributes*)
- Date (*with type attribute*)
- Language
- ResourceType (*with description attribute*)
- AlternateIdentifier (*with type attribute*)
- **RelatedIdentifier** (*with type und relationType attributes*)
- Size
- Format
- Version
- Rights
- Description (*with type attribute*)

DataCite Services

Metadata Store (MDS)

- Registration and updating of DOI names.
- Storage of metadata.
- Accessible via UI or API.



The screenshot shows the DataCite Metadata Store (MDS) interface. On the left, there is a navigation menu with the following items:

- Dataset**
 - Register new Dataset
 - List all Datasets
 - Find by DOI
- View**
 - API documentation

The main content area is titled "Register new Dataset" and contains the following text:




DOI latency: Be aware that it can take up to 24 hours until a DOI update is globally known. New DOIs should be resolvable after about 5 minutes.

For testing purposes please only use our dedicated test prefix 10.5072

The form includes the following fields and options:

- DOI:
- Url:
- Is Active:
- Is Ref Quality:

A "SAVE" button is located below the form fields.

At the bottom of the page, there is a footer with the following text: [Home](#) | Language:    | [Logout](#)

- Se
- Fil


DataCite
Filter
allocator
datacentre
TIB.PANGAE/
ZBMED.GMS
BL.ADS (55)
TIB.AMA (42)
TIB.EUGRAP
more
prefix
resourceTyp
contributor
creator
publicationYe
publisher
language
refQuality
has_metadat

DataCite Metadata Advanced Search



Search

Search in all fields

Field Search

DOI

Title

Creator

Publisher

Contributor

Format

Subject

Date

Description

Resource Type

Alternate Identifier

Related Identifier

Publication Year

 (to)

[Options](#) | [Advanced Search](#)

mathymetry

mathymetry

DataCite Services

OAI-PMH Data Provider

- Exposes metadata stored in the MDS using the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH).
- Service is open to everyone.
- Available metadata formats:
 - OAI Dublin Core (oai_dc)
 - OAI DataCite (oai_datacite)
This format contains several other elements describing the version of the metadata, whether it is of reference quality, and the registering datacentre.
 - DataCite Direct (datacite)

DataCite Services

Content Service

- Exposes metadata stored in the MDS using multiple formats: DataCite XML, DataCite text citation, RDF/XML, RDF Turtle, BibTeX, RIS, HTML
- Accessible with HTTP content negotiation or HTML links.



doi:10.3207/0906884659

This page represents DataCite's metadata for *doi: 10.3207/0906884659*. For a landing page of this dataset please see <http://dx.doi.org/10.3207/0906884659>.

Citation Prof. Dr. Michael C. Knorz (2010): Laser Refractive Lens Surgery using an Intraocular Laser

Descriptions

Abstract This video shows an intraocular femtosecond laser (Alcon LenSx Lasers, Inc, Ft. Worth, TX) being used to perform laser assisted in situ keratomileusis (LASIK) on the cornea, lens capsule and lens. Nucleus liquefaction, capsulorhexis and corneal incisions. Irrigation/aspiration only is used to remove the liquefied lens nucleus, and this is faster than the manual technique and enables the surgeon to combine the lens surgery with the LASIK procedure.

Other metadata formats

| | |
|-------------------------|---|
| x-datacite+xml | http://data.datacite.org/application/x-datacite+xml/10.3207/0906884659 |
| x-datacite+text | http://data.datacite.org/application/x-datacite+text/10.3207/0906884659 |
| rdf+xml | http://data.datacite.org/application/rdf+xml/10.3207/0906884659 |
| turtle | http://data.datacite.org/text/turtle/10.3207/0906884659 |
| x-bibtex | http://data.datacite.org/application/x-bibtex/10.3207/0906884659 |
| x-research-info-systems | http://data.datacite.org/application/x-research-info-systems/10.3207/0906884659 |
| html | http://data.datacite.org/text/html/10.3207/0906884659 |

Links

- <http://schema.datacite.org>
Access to all versions of the DataCite metadata schema, with documentation, schema definition, and examples.
- <http://search.datacite.org>
Search engine for all metadata stored by DataCite.
- <http://oai.datacite.org>
Datacite's OAI-PMH service which allows access to the metadata.
- <http://data.datacite.org>
DataCite Content Service exposes metadata using multiple formats.

Thank you for your attention!

