

IA2 Approach to FAIRness



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Building blocks



IA2

HW infrastructure;
Archives;
VOSpace;
Workflow management system;
Collaborative tools;

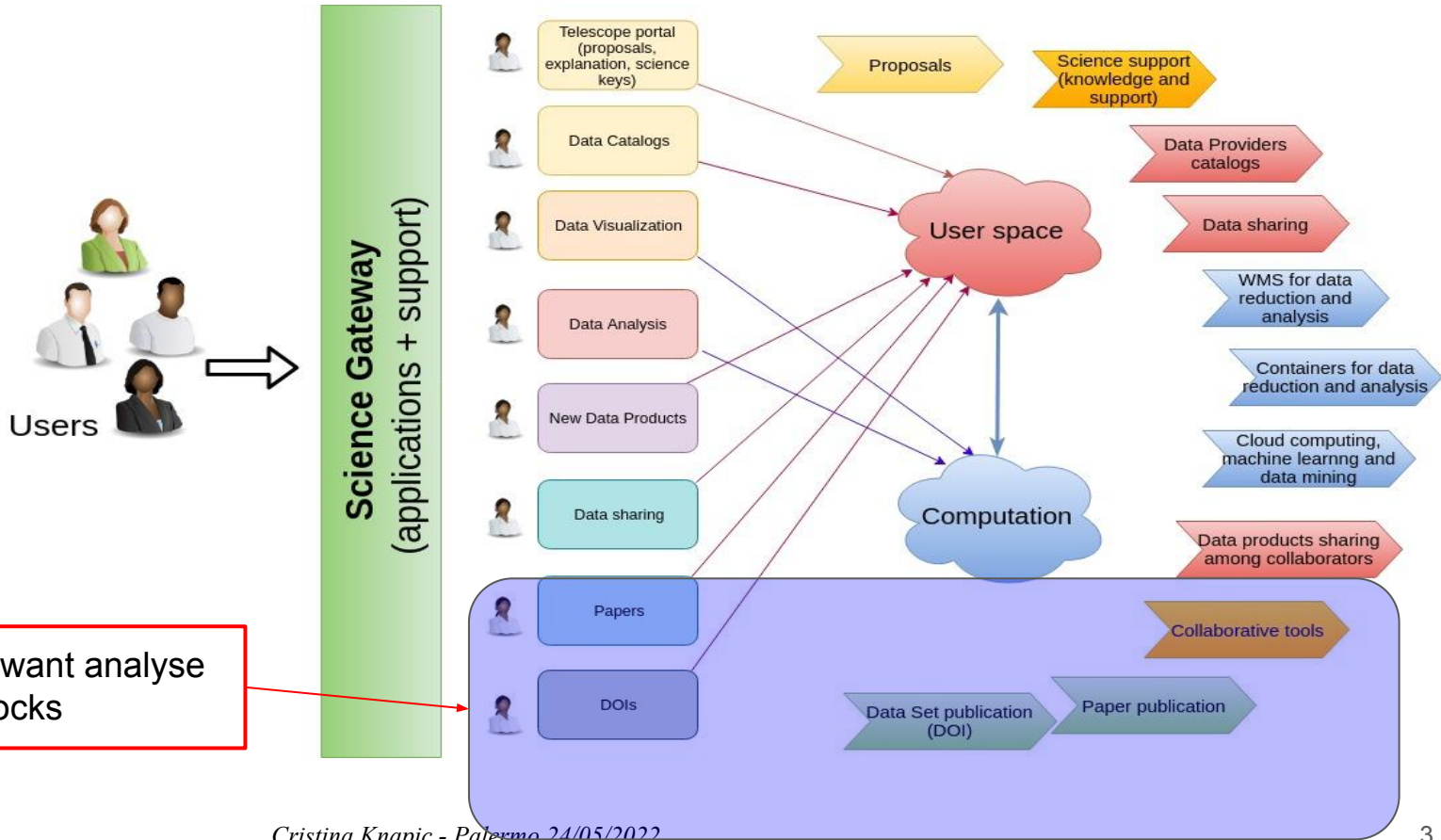
ICT

Git (versioning, CD/CI)
DOI
Project management systems

INAF

SKA DC2 science gateway (courtesy of F. Tinarelli);
Computational infrastructures:

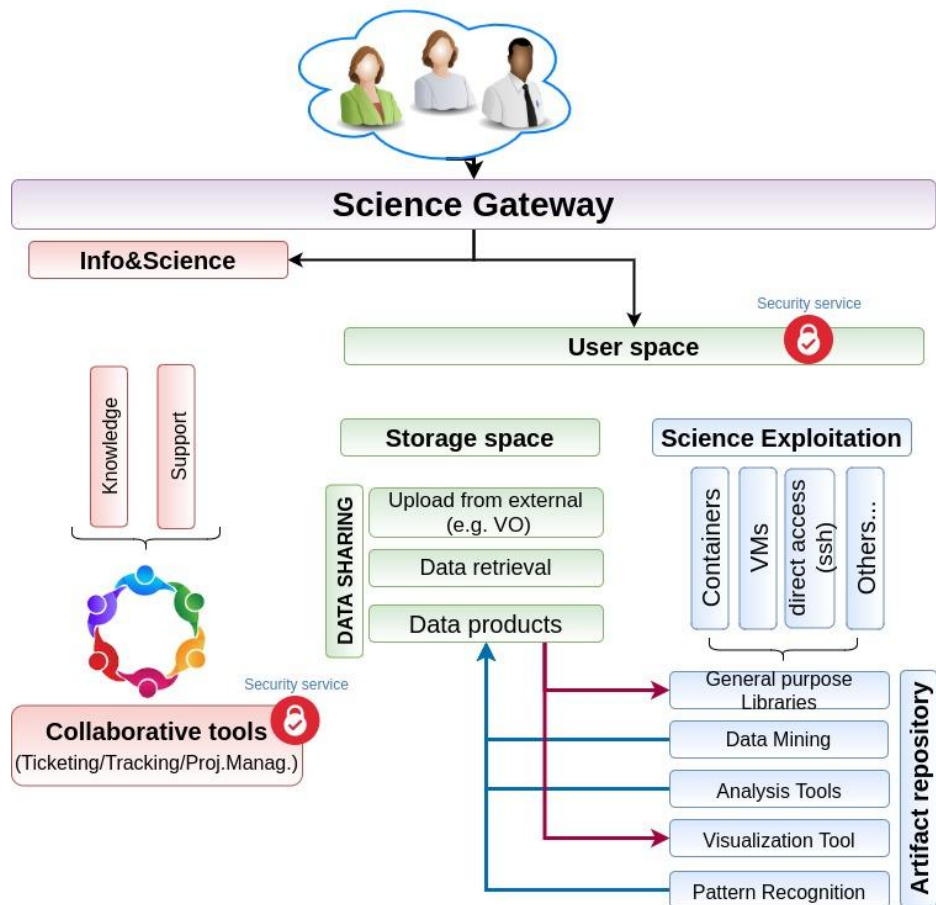
- Chipp
- Pleiadi
- ...

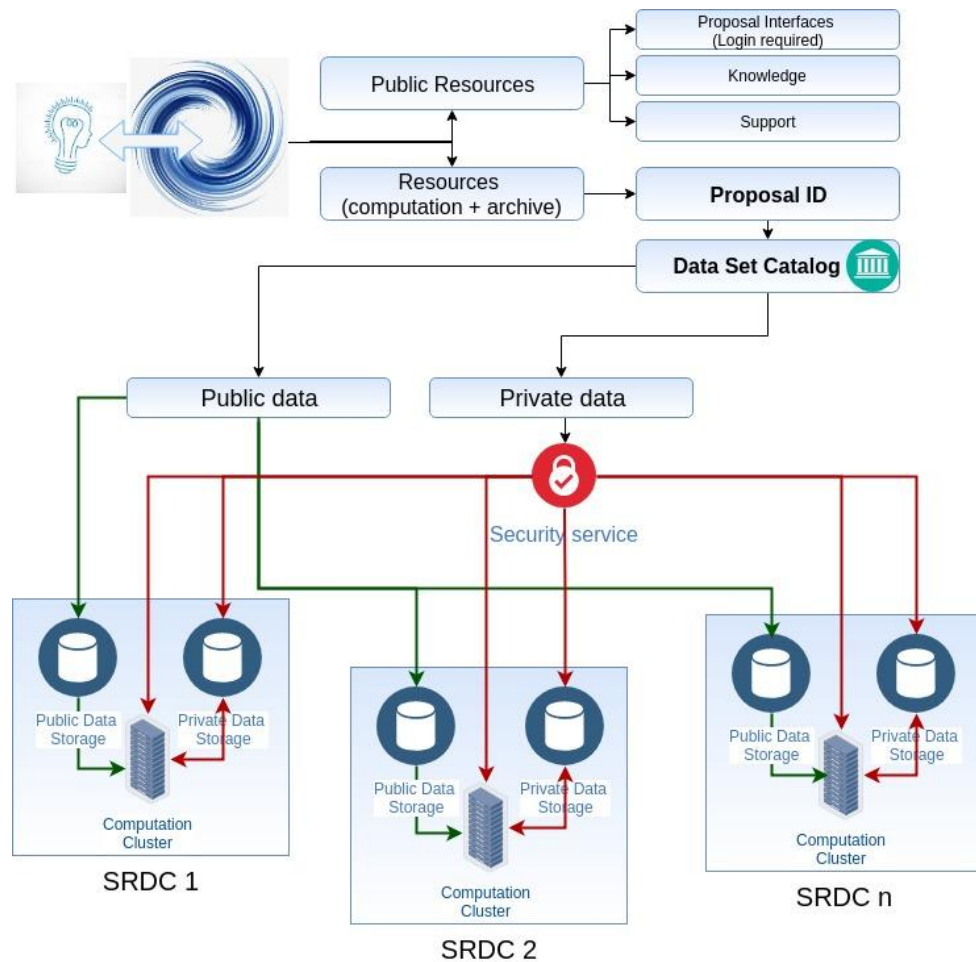


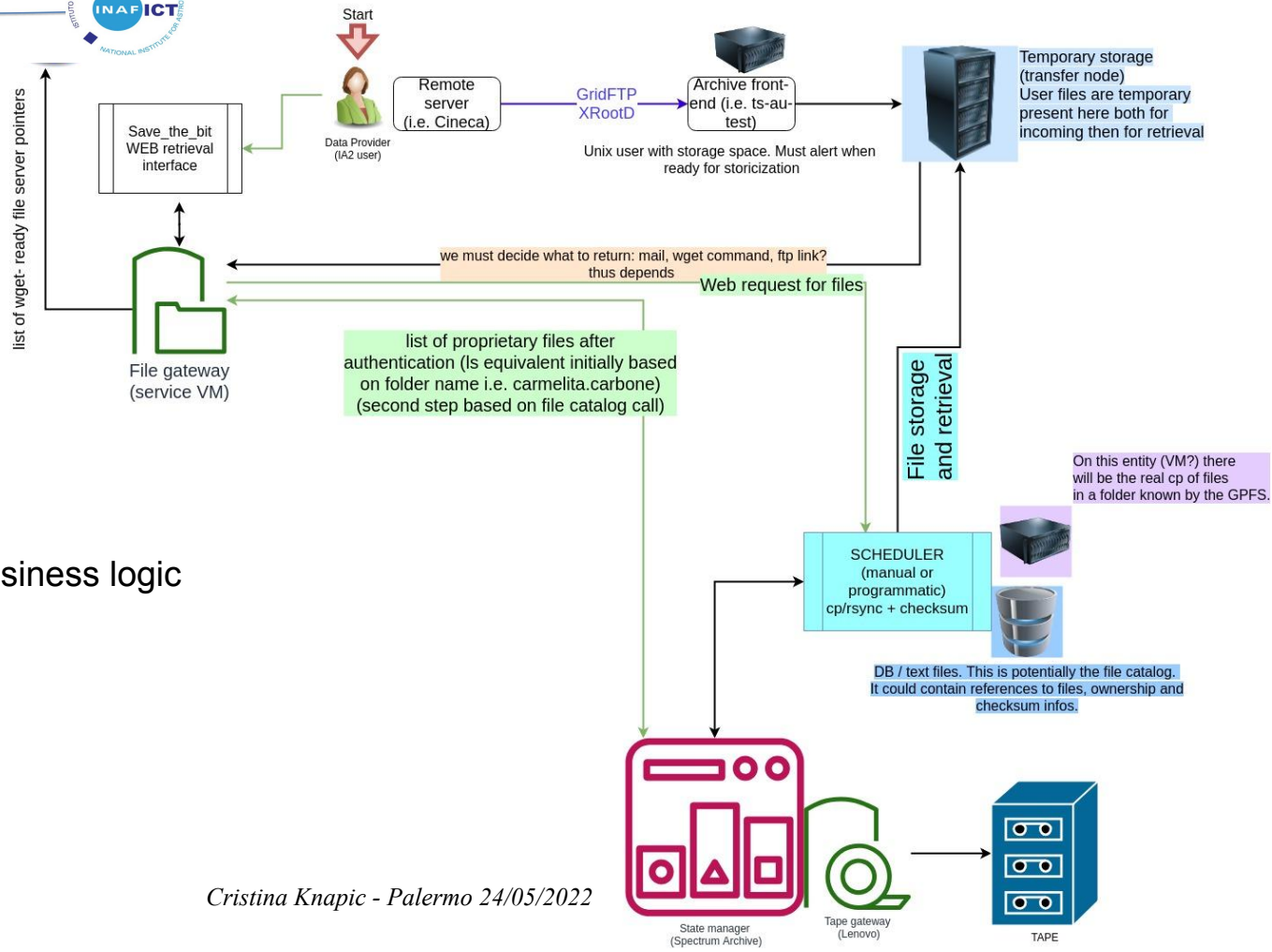
An interoperable (with other DCs) framework to support Science, the so called Science Gateway, can contain all the necessary information for data FAIRness:

- raw data;
- pipelines & reduction parameters;
- intermediate and advanced products;
- ancillary information;

Including DOI for datasets, all the path is tracked and reproducibility gained!

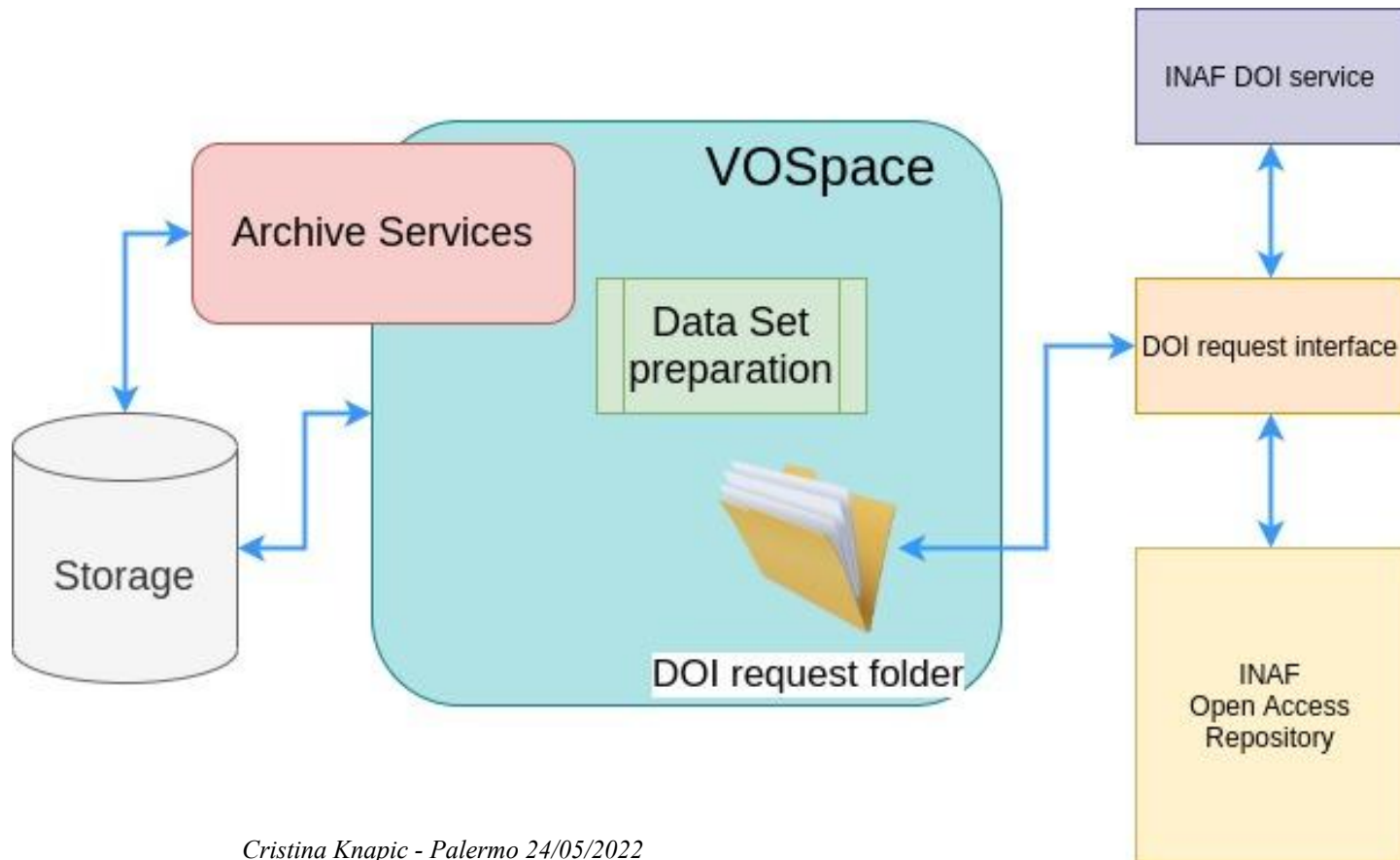




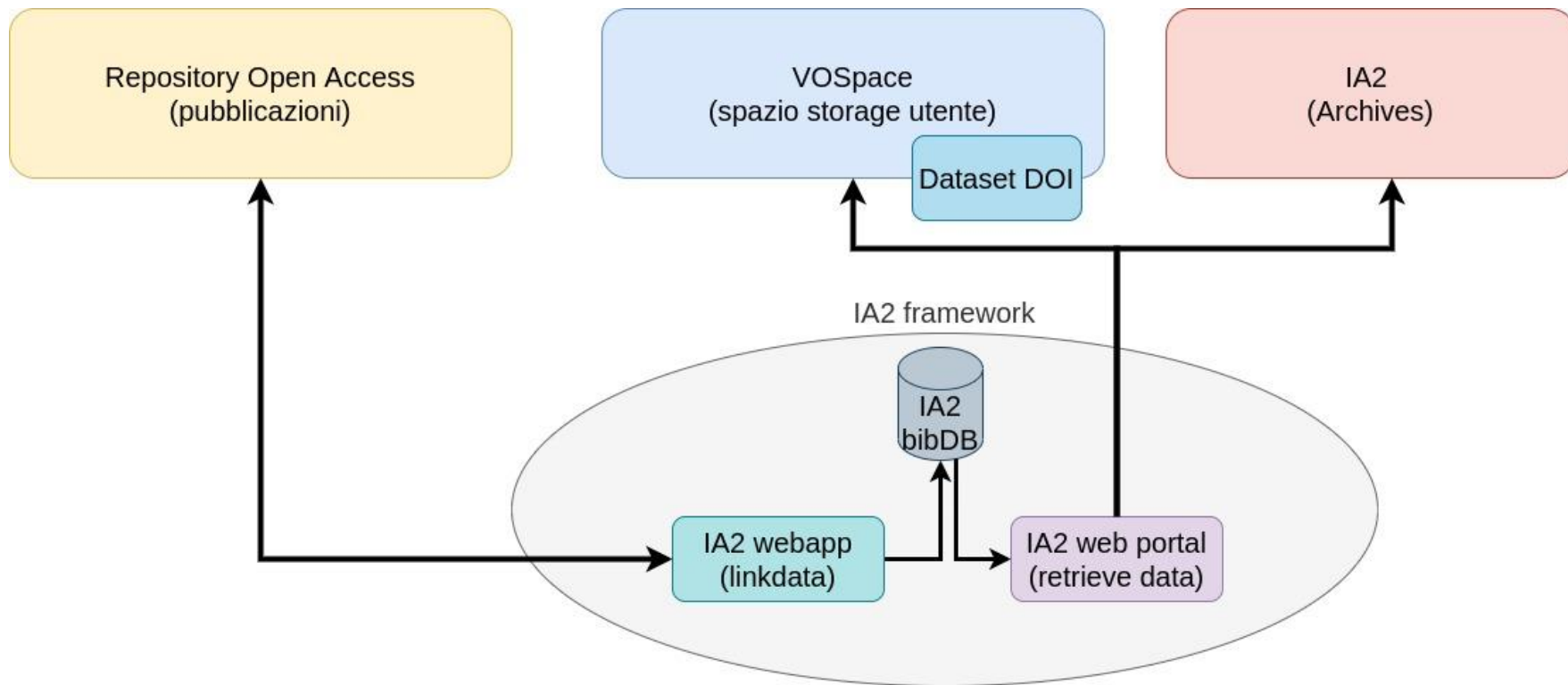


The VOSpace business logic

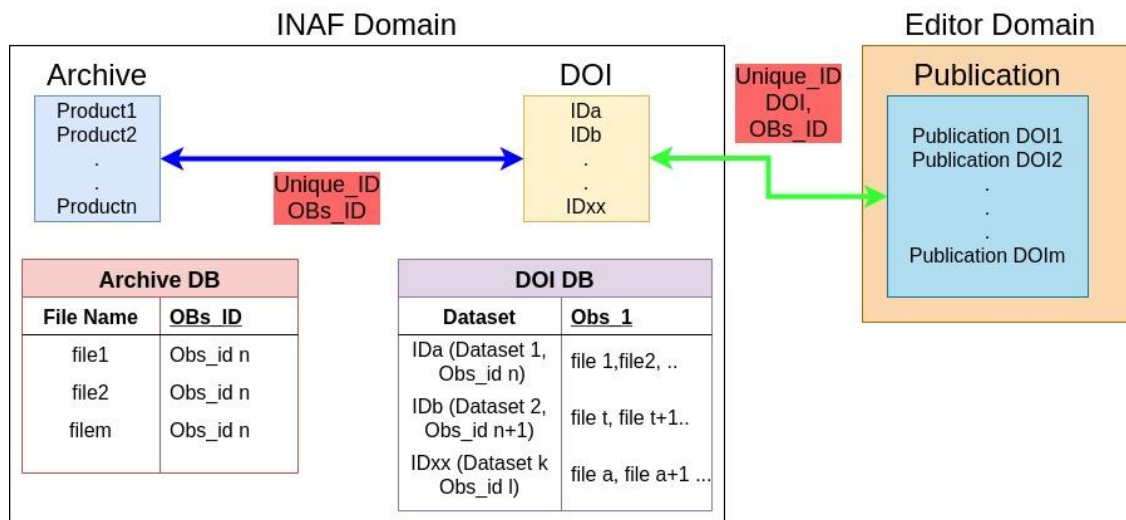
Linking data to DOI



Linking data to DOI



Technically speaking..



Existing applications



← → ↻ Non sicuro | staging-ia2.inaf.it/vospace/ui/#/nodes/

App Gmail YouTube Maps Traduci

Elenco di lettura

VOSpace Jobs 0 Cristina Knapic

ROOT

New folder Upload files

<input checked="" type="checkbox"/>	<input type="checkbox"/>	Name	Size	Group read	Group write
<input type="checkbox"/>	<input type="checkbox"/>	cristina.knapic	0 B		
<input type="checkbox"/>	<input type="checkbox"/>	IA2	0 B	VOSpace.test1	VOSpace.test1

Share

— Powered by IA2 —

← → ↻ doi.ict.inaf.it/index.php

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DOI metadata generator v0.3.1

Click [here](#) for more information about interface usage

WARNING: application being tested in beta! Please, report bugs at doi.ict@inaf.it

Resource type: Dataset

The type of resource

Current authors: 1

Add author Remove author

Surname	Name	ORCID	Affiliation type	INAF affiliation
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Author surname Author name Author ORCID (e.g. "0000-0002-1825-0097") Author affiliation type Author affiliation (name)

Title

The title of your resource

Created on Available from Modified on

When the resource was created When the resource was made available Date of resource last modification

File format File size Unit

The dataset file format (e.g. "tar.gz") File size and unit (e.g. "1.27 MB" with max 3 decimal digits)

Version Publisher Language

Version of your resource (e.g. "1.2.3") The institution responsible for publication The publication language

Abstract

A short (plain) text illustrating the resource content

Associated papers

Download Edit query

Rows displayed: 20

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<input type="checkbox"/>	<input type="checkbox"/>	FDRL0028.fts.gz	FREE	2002-02-21	zero	SRG	NONE	NULL
<input type="checkbox"/>	<input type="checkbox"/>	FDRL0029.fts.gz	FREE	2002-02-21	zero	SRG	NONE	NULL
<input type="checkbox"/>	<input type="checkbox"/>	FDRL0030.fts.gz	FREE	2002-02-21	zero	SRG	NONE	NULL
<input type="checkbox"/>	<input type="checkbox"/>	FDRL0031.fts.gz	FREE	2002-02-21	zero	SRG	NONE	NULL
<input type="checkbox"/>	<input type="checkbox"/>	FDRL0032.fts.gz	FREE	2002-02-21	zero	SRG	NONE	NULL
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<input type="checkbox"/>	<input type="checkbox"/>	EYVC0004.fts.gz	FREE	2001-12-06	OBJECT	LRS	NONE	PreimMOS
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<input type="checkbox"/>	<input type="checkbox"/>	EYVC0026.fts.gz	FREE	2001-12-06	OBJECT	LRS	NONE	PreimMOS
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<input type="checkbox"/>	<input type="checkbox"/>	EYVC0045.fts.gz	FREE	2002-01-14	OBJECT	LRS	NONE	NULL

Astrophysical information consists basically in:

- Prop_ID,
- Obs_ID,
- PName

doi.ict.inaf.it/index.php

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DOI metadata generator v0.3.1

Click [here](#) for more information about interface usage

WARNING: application being tested in beta! Please, report bugs at doi.ict@inaf.it

Resource type
Dataset

The type of resource:

Current authors: 1 [Add author](#) [Remove author](#)

Surname Name ORCID Affiliation type INAF affiliation

Insert author surname Insert author name Insert author ORCID INAF O.A. Trieste

Author surname Author name Author ORCID (e.g. "0000-0002-1825-0097") Author affiliation type Author affiliation (INAF)

Title

Insert title

The title of your resource

Created on Available from Modified on

gg/mm/aaaa gg/mm/aaaa gg/mm/aaaa

When the resource was created When the resource was made available Date of resource last modification

File format File size Unit

.tar.gz 0 MB

The dataset file format (e.g. "tar.gz") File size and unit (e.g. "127.89 GB" with max 2 decimal digits)

Version Publisher Language

Insert version O.A. Trieste English

Version of your resource (e.g. "2.2.8") The institution responsible for publication The publication language

Abstract

Insert your abstract here...

A short (plain) text illustrating the resource content

Associated papers

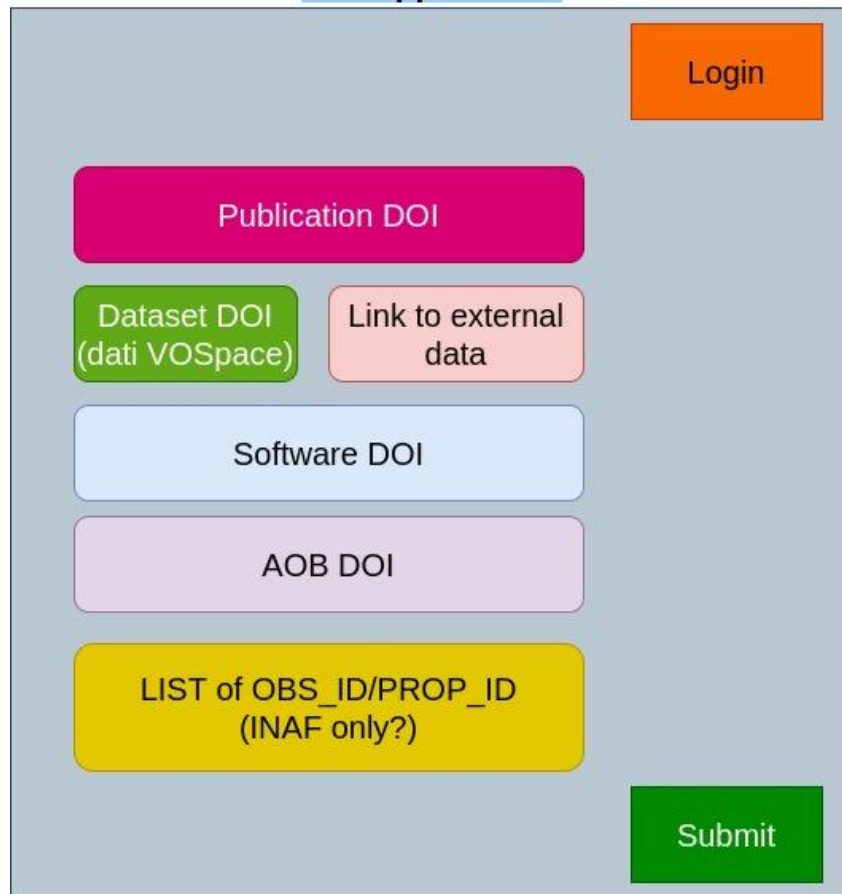
Add
Astronomical
Information

Publication Repository and metadata association web application



Links between Dataset, software (pipelines) and parameters DOIs and paper DOI are delegated to users.

Why? Because it help citations!



The web application interface is a light blue rectangular box containing several colored buttons and text elements:

- Login**: An orange button in the top right corner.
- Publication DOI**: A magenta button in the upper middle section.
- Dataset DOI (dati VOSpace)**: A green button in the middle left section.
- Link to external data**: A light pink button in the middle right section.
- Software DOI**: A light blue button in the lower middle section.
- AOB DOI**: A light purple button in the lower middle section.
- LIST of OBS_ID/PROP_ID (INAF only?)**: A yellow button in the bottom middle section.
- Submit**: A green button in the bottom right corner.

Paper DOI in Archives



Download Rows displayed: 20

<input checked="" type="checkbox"/>	File name	Policy	Observation date	Obs. Type	Instrument	Program	Object	Publications
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<input type="checkbox"/>	EYVC0004.fts.gz	FREE	2001-12-06	OBJECT	LRS	NONE	PreimMOS	DOI_b1, DOI_b2... DOI_bM
<input type="checkbox"/>	EYVC0013.fts.gz	FREE	2001-12-06	OBJECT	LRS	NONE	PreimMOS	DOI_c1, DOI_c2... DOI_cP
<input type="checkbox"/>	EYVC0026.fts.gz	FREE	2001-12-06	OBJECT	LRS	NONE	PreimMOS	DOI_d1, DOI_d2... DOI_dJ
<input type="checkbox"/>	EYVC0027.fts.gz	FREE	2001-12-06	OBJECT	LRS	NONE	PreimMOS	DOI_e1, DOI_e2... DOI_eK
<input type="checkbox"/>	EAX10045.fts.gz	FREE	2002-01-14	OBJECT	LRS	NONE	NULL	

Conclusions



Advantages:

- increase citations;
- increase data discoverability;
- increase data reuse;
- allow statistics on data re-usage;
- reduce the librarian work of gathering facility related publications;
- indirectly contribute to the ANVUR ranking

Disadvantages:

- Some actions are required of users;
- interoperability with publisher standards are not guaranteed (not all can be easily imported)

Comments ?
Questions?

Thanks for your attention!

