IL PROGETTO IBiSCo E LA TRANSIZIONE VERSO IL “CENTRO NAZIONALE DI RICERCA IN HIGH PERFORMANCE COMPUTING, BIG DATA E QUANTUM COMPUTING (ICSC)”- Napoli, 18-19 aprile 2024

Open Access repositories for scientific literature and research data

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Stefano Dal Pra (INFN-CNAF)

in collaboration with Gruppo di lavoro Open Science INFN

Istituto Nazionale di Fisica Nucleare

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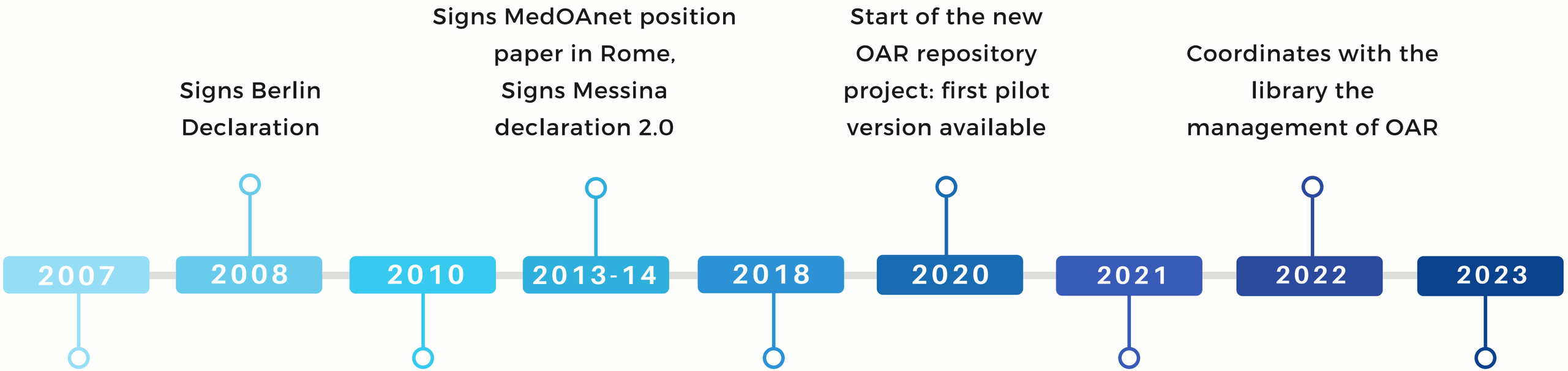
INFN and Open Science



Contacts: openscience@lists.infn.it

INFN Open Access Repository - OAR

https://www.openaccessrepository.it/

Becomes INFN's institutional repository with the approval of **Disciplinare per l'accesso aperto ai prodotti della ricerca dell'INFN** by Deliberation n. 16717 in July 2023 (https://doi.org/10.15161/oar.it/143269)

01 **Open Source**

02 Compliant with the guidelines of **EOSC** (European Open Science Cloud), **PlanS**, and **FAIR** principles

03 Designated to be a single, standardized and certified **access point** for the deposit of research results and other INFN digital resources

04 Compliant with major **bibliographic standards** (e.g., DCMI, Marc21, OAI-PMH)

05 Uses standards for **data and metadata exchange** with other archives (arXiv, SCOAP3, Zenodo, re3data, etc.)

INFN Open Access Repository - OAR

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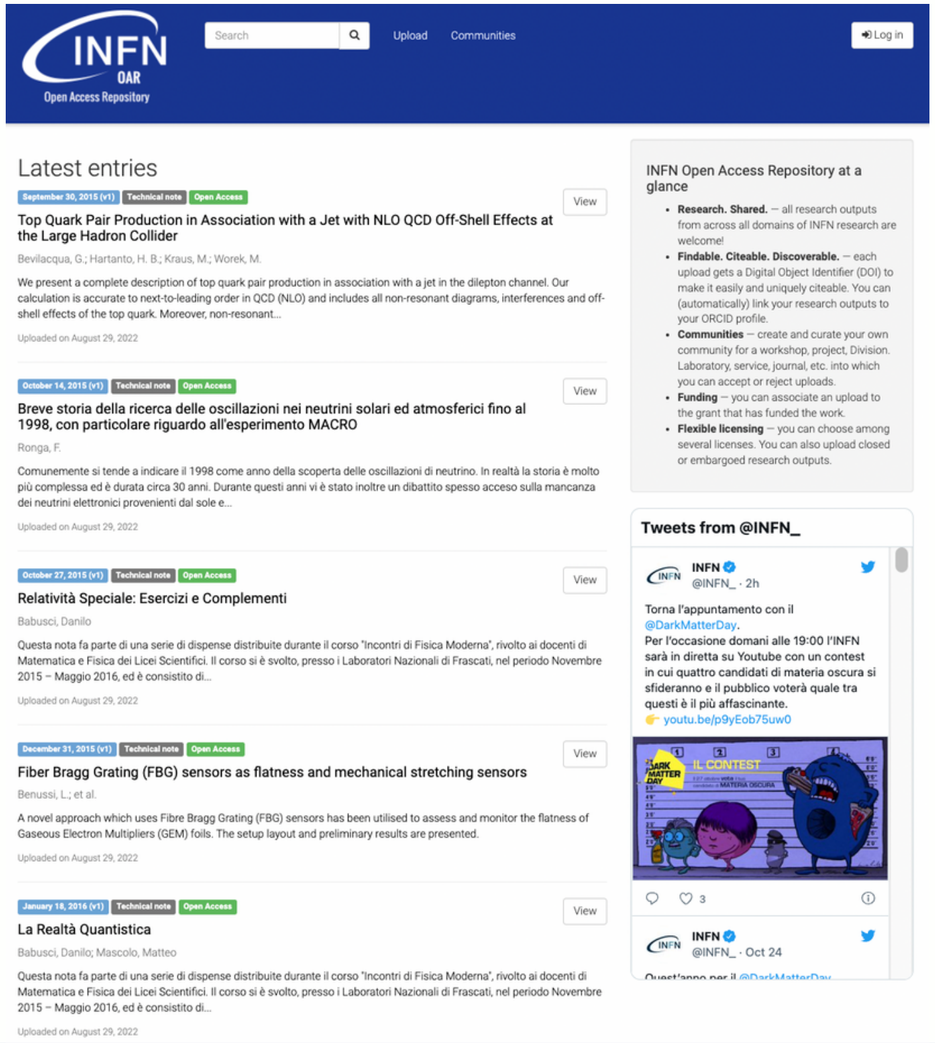


WHAT IS

Based on Zenodo and Invenio, open source software developed by CERN

WHO USES IT

INFN researchers and staff, other agencies (ISPRA, AISA, CoPER, etc.)

WHAT YOU CAN DEPOSIT

All file formats (publications, data, software, images, etc.)

OAR - Populating methods

1 SINGLE USER DEPOSIT

2 HARVESTING
importing metadata from external sources

3 *BULK ACTIONS*
from INFN Documentary Databases

Bulk actions

Scripts made to implement a task automation system within OAR
Language: Python - Source file: YAML - GitHub: github.com/acaland/infn-oar-bulk-actions

Scripts

- deposit
- publish
- delete
- list
- curate
- search

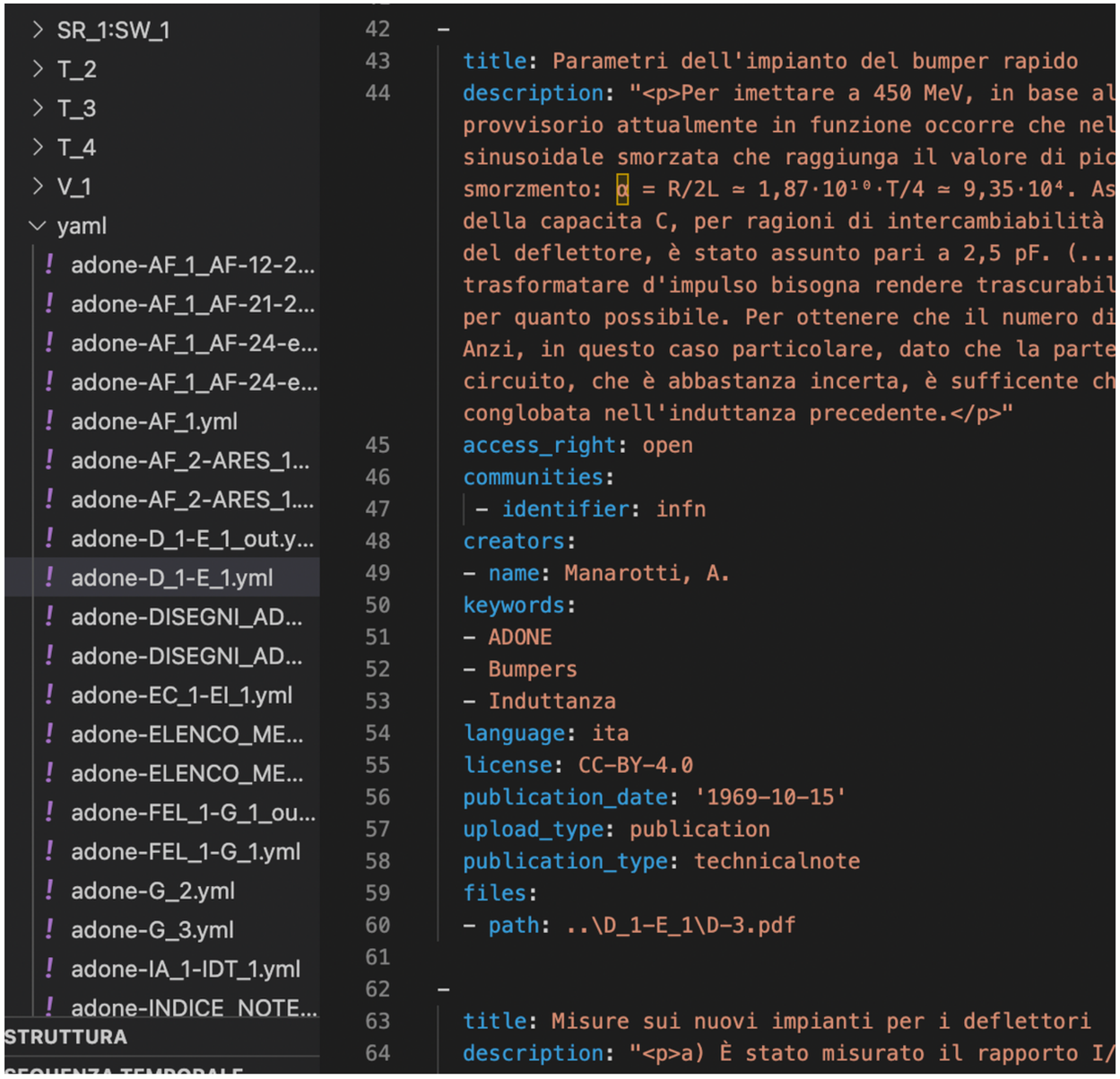
Actions (deposit, publish)

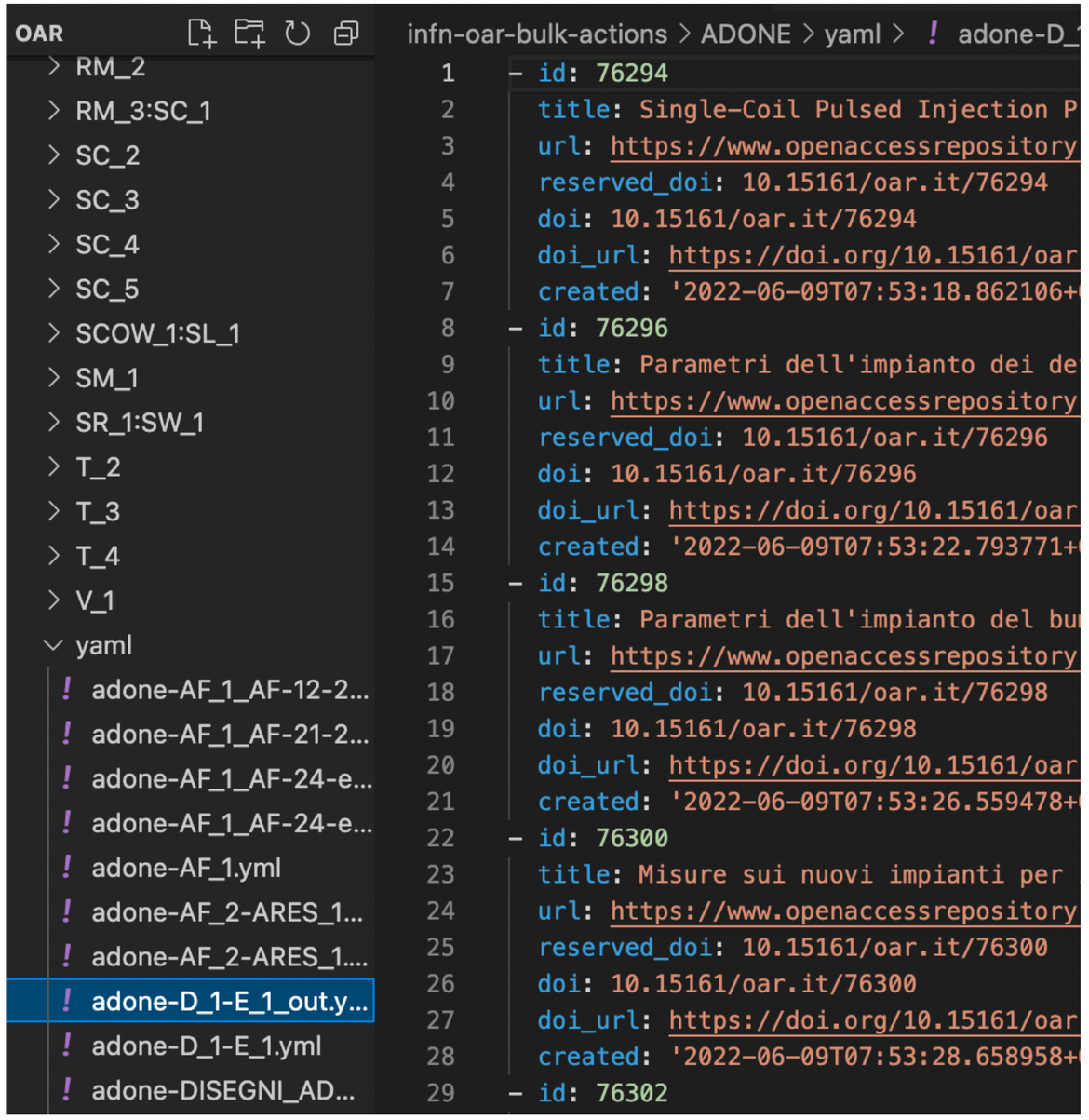
- YAML file compilation
- run command for deposit
- out.yml file for publish

Documents

- ADONE Notes
- INFN Internal Notes
- OA products for VQR 2015-2019

Bulk actions - Completion of YAML file + file out.yml





Dissemination and training

OPEN SCIENCE INFN WEBSITE

to

- promote the use of OAR repository
- disseminate the principles of Open Science

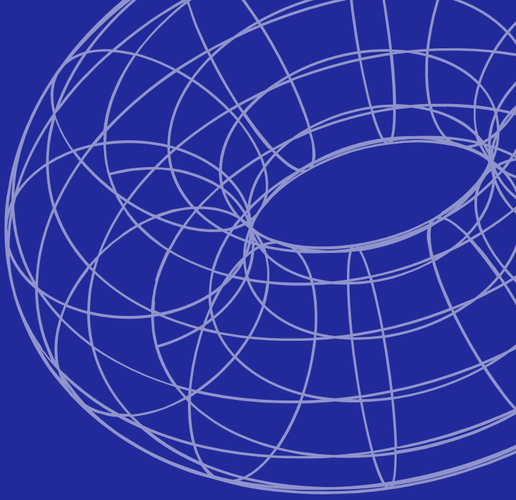
TUTORIAL DAYS CCR INFN

(November 28-29, 2023)

La strategia Open Access dell'INFN e il relativo disciplinare: training course and demo on using OAR for INFN technical staff

Transformative agreements at INFN

a bibliographic data analysis of INFN publications



Introduction of read&publish contracts in 2023

Ongoing transformative agreements at INFN

Elsevier

AIP

IOP

Necessary verification of the number of publications by INFN authors (Web of Science Core Collection)

Refer to slides 20-23 for more details

OAR migration to InvenioRDM

CURRENT VERSION: INVENIO FRAMEWORK V3

ONGOING MIGRATION TO INVENIO RDM V11 BY CNAF (released in January 2023)where it will become national service

Invenio RDM - News

CONTROLLED VOCABULARIES

Allow auto-completion of the fields

- **Affiliations** (entity name)
- **Names** (authors)
- **Subjects** (subject)
- **Users** (verification and approval of user profiles)

ROR (RESEARCH ORGANIZATION REGISTRY)

Unique identifier for institutions, under the *funders.identifiers* field in the institutions vocabulary

METADATA ONLY RECORDS

COMMUNITIES MANAGING

Community curators can also **edit records** (since v9)

Potential developments and upcoming activities

Metadata customization, introduction of **controlled vocabularies,** and adoption of classification schemes (e.g., PhySH - Physics Subject Headings)

Planning **ingestion activities** into INFN Open Access Repository from other open access repositories of scholarly articles (such as arXiv, InspireHEP, Scoap3)

Author field management and affiliation for authors' disambiguation: discussion with DSI-INFN group for development of new management system for INFN research products

Training and dissemination activities

- Realization of a national training course on Open Science (September 2024)
- Ongoing assistance in the use of OAR

Thank you!

Contacts

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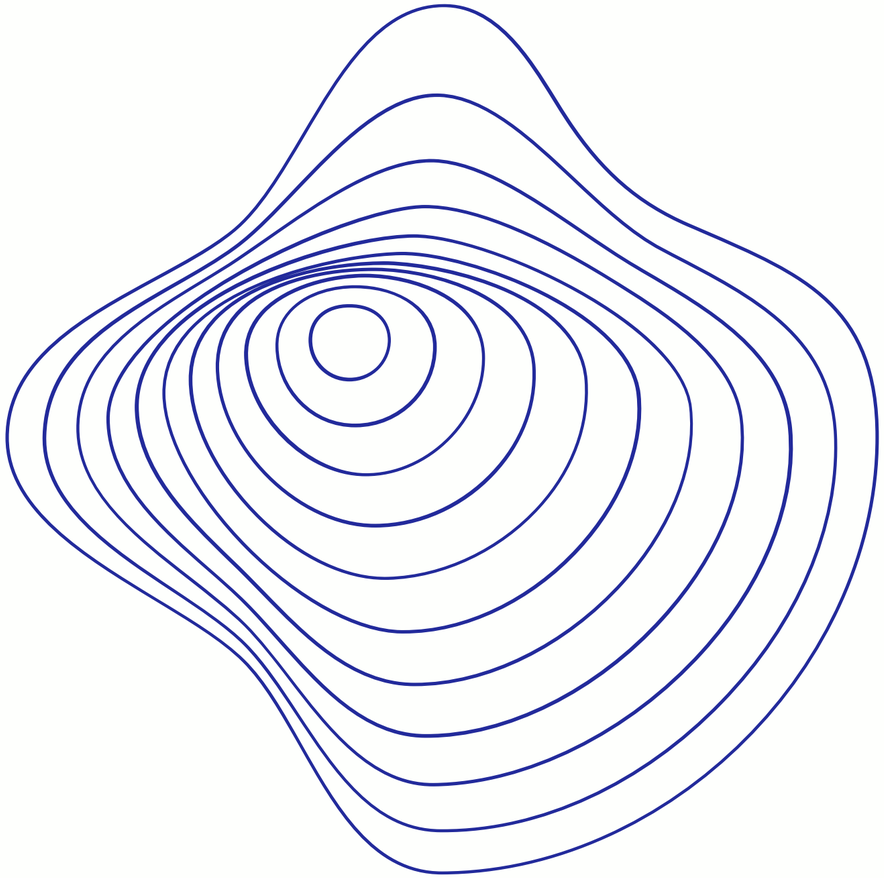
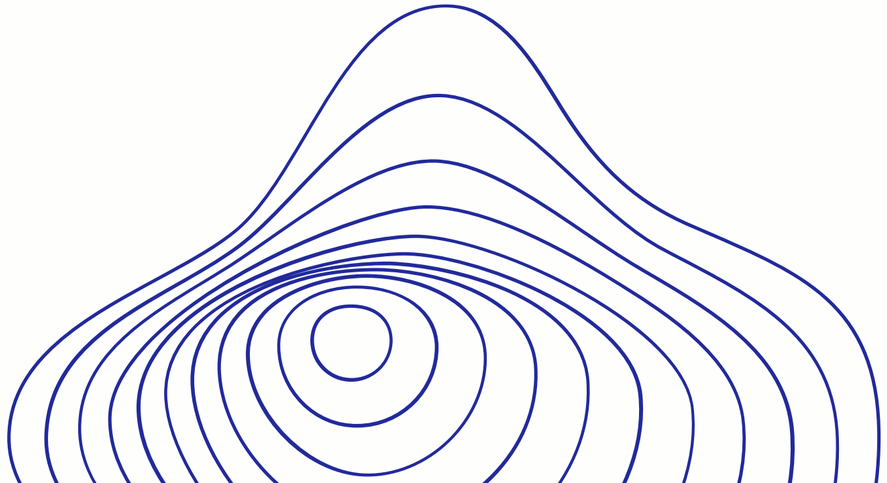
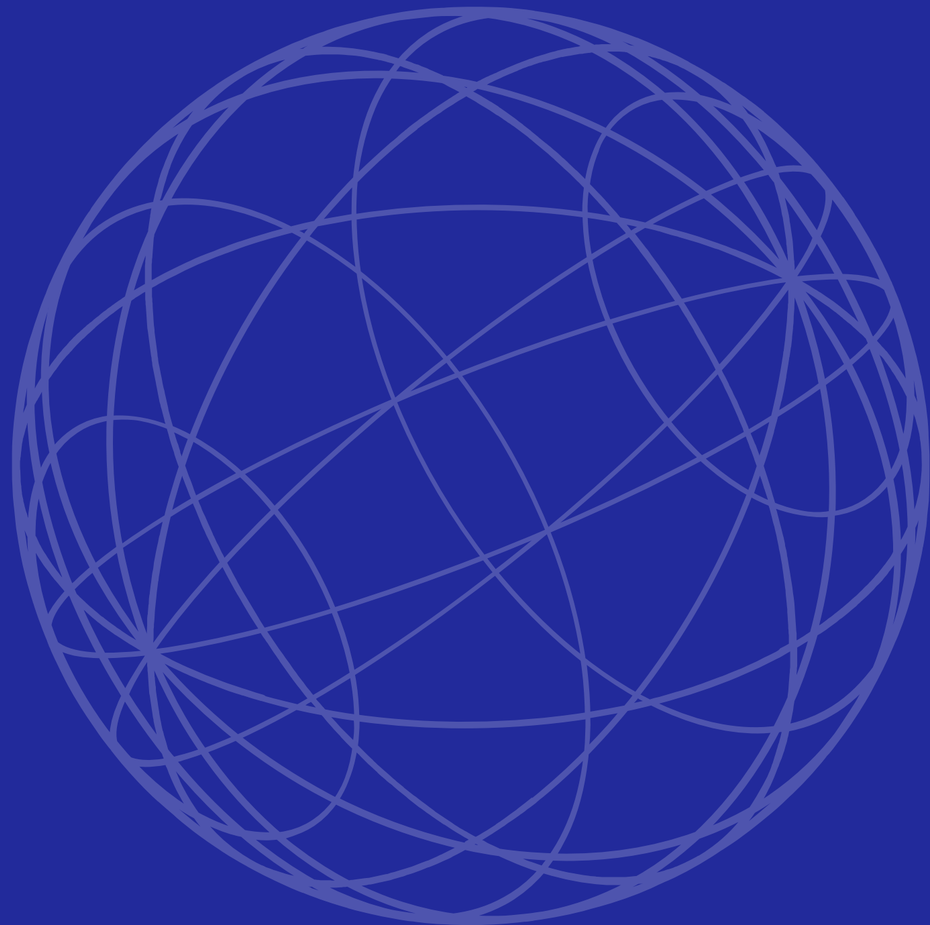




extra



Disciplinare per l'accesso aperto ai prodotti della ricerca dell'INFN

https://doi.org/10.15161/oar.it/143269

A tool that allows the author to

- Enhance and preserve deposited content over time
- Retain AAM/postprint deposit rights to themselves
- Navigate the publishing landscape
- Avoid predatory journals

A tool that enables the institution to

- Preserve and enhance the documentary heritage
- Open/Embargoed/Restricted/Closed access
- Implement the Open Science policies of which it is a promoter

Written from the experiences of the academic community

CRUI model + specifications already in use in universities and EPRs

Disciplinare per l'accesso aperto ai prodotti della ricerca dell'INFN

https://doi.org/10.15161/oar.it/143269

Art. 5

Authors deposit their Products in the **INFN Institutional Repository** (not required if the Product has already been deposited on arXiv or InspireHEP).
(Art.5.1) Each Author will use the **name of the structure** to which they belong (Art.5.3)

GREEN OA

www.openaccessrepository.it

AFFILIATION ROR

Annex 1: Unique ROR code for each INFN Facility

Art. 6

Once published, **Research data are deposited in the INFN archive** and are made **accessible, identifiable, traceable, interoperable**, and, where possible, available for subsequent use in accordance with FAIR principles.

Art. 7

INFN recommends that Authors of not enter into agreements that provide exclusive rights and **keep AAM/postprint deposit rights** for themselves (avoiding predatory journals)

PUBLISHING AGREEMENTS

Art. 11

Edizioni INFN intends to contribute to spreading the knowledge and prestige of the Institute and to participate in the promotion of knowledge and culture outside the world of research as well, (...) To this end, **it promotes the publication of open access journals and monographs and recommends that authors deposit a copy of their contributions in the archive**

DIAMOND OA

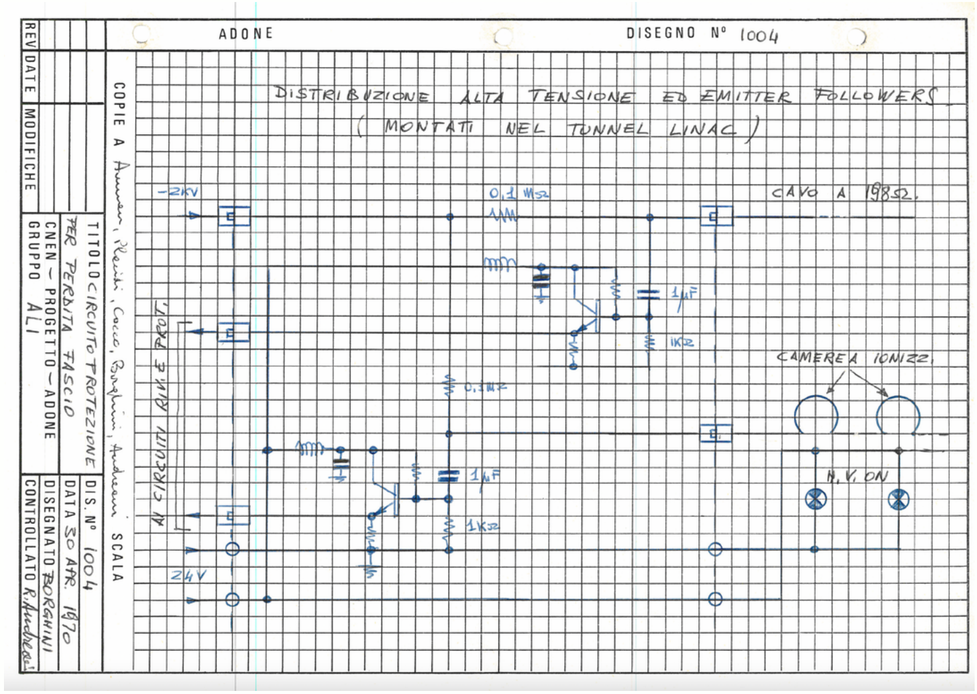
ADONE tecnical notes

DESCRIPTION

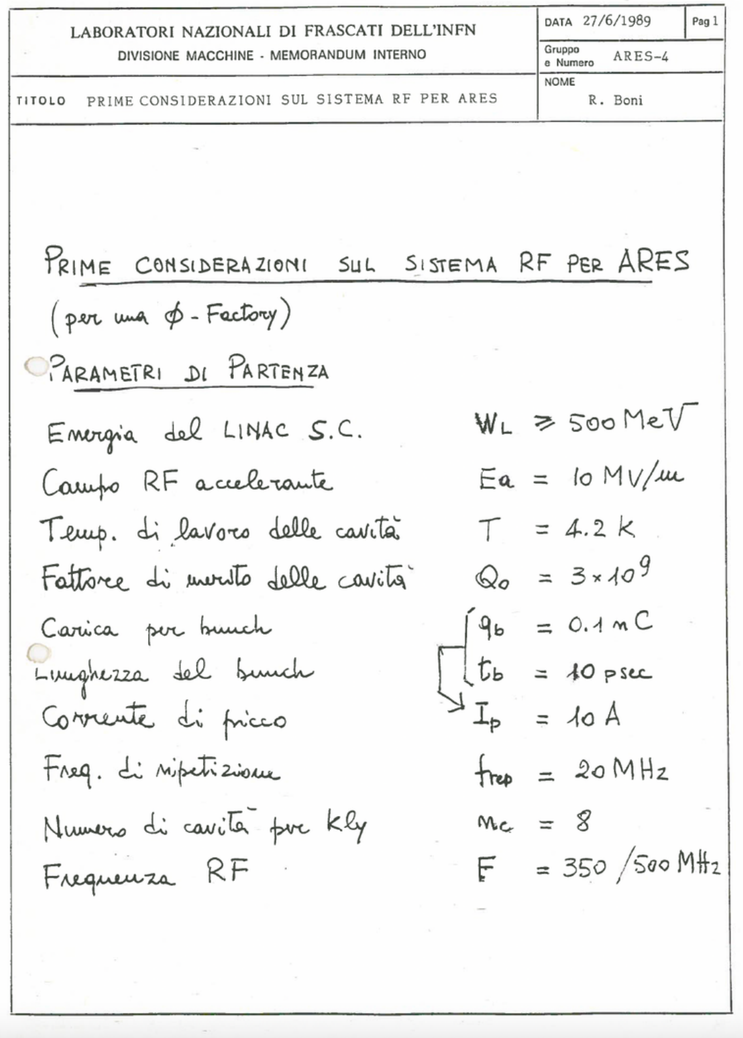
About 1200 Technical notes related to the **ADONE experiment**, carried out in the LNFs from 1969 to 1993

ACTIONS

- **OCR**
- **YAML file completion**
- **deposit + publish**



Gruppo Disegni, nota N. 1004, 30/04/1970



Gruppo ARES, nota N. 4, 27/06/1989

INFN Internal Notes

DESCRIPTION

- Document **theoretical and experimental activities** of INFN employed or associated personnel
- so far stored in the **INFN Notes Database**

ACTIONS

- Previously deposited in OAR until 2015
- Bulk actions: approximately **90 notes** from 2015-2022

VQR 2015-2019

DESCRIPTION

Collaboration with **Gruppo di Lavoro sulla Valutazione INFN (GLV),** in preparation for the VQR 2015-2019 evaluation exercise

ACTIONS

Deposit in OAR of **291 open access research products** for VQR 2015-2019 evaluation exercise

Transformative agreements at INFN
a bibliographic data analysis of INFN publications

Search and export data from Web of Science Core Collection

Publications with INFN corresponding author for publishers:
SpringerNature, Elsevier, IEEE, AIP, IOP, APS

Setting up WoS search with filters
Affiliation
Year Published
Publisher

Extraction of results into .xlsx files and data analysis:
Reprint address
Source Title
Publication Year

Comparison with data provided by publishers
DOI
Publication date
Affiliation position
Journal name

Indexing of authors in Web of Science

since 2008 - author-affiliation links, data retrieval from journals

since 2016 - Affiliation indicated for all authors, not just corresponding authors

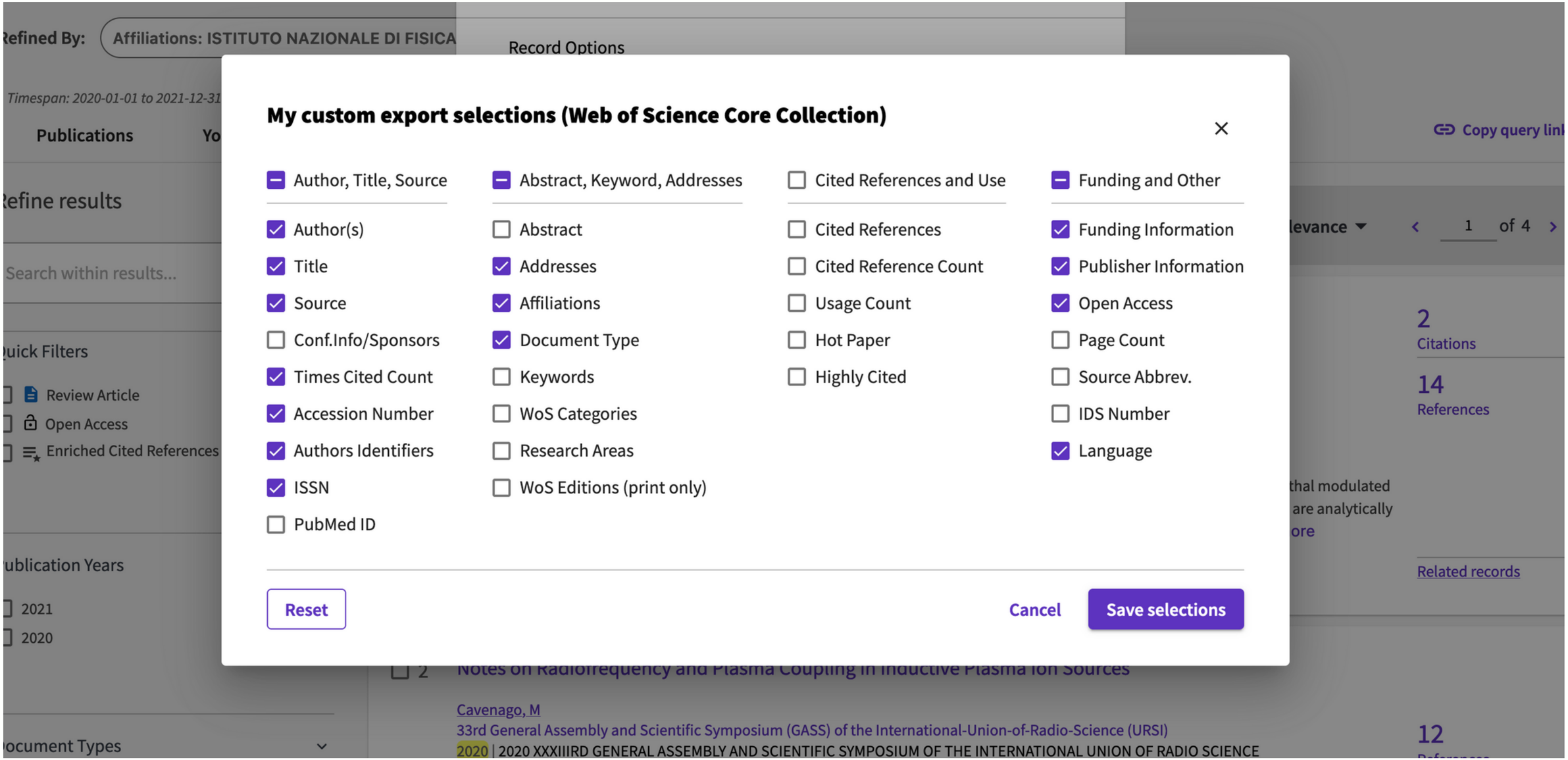
- Web of Science Core Collection: Explanation of Corresponding Address
- Web of Science: Corresponding addresses paired with author names

98%

ARTICLES WITH AFFILIATION SINCE 2016*

*Maddi, A., Baudoin, L., The quality of the web of science data: a longitudinal study on the completeness of authors-addresses links. Scientometrics 127, 6279-6292 (2022). https://doi.org/10.1007/s11192-022-04525-0

Export results to Excel - filter selection



Analysis of extracted data

1 - Date

Order by date, if data from multiple publication years were extracted (e.g., 2020-2022)

2 - Affiliation

Search the *Reprint address* column for variants of the entity name (INFN, National Institute of Nuclear Physics, Natl Inst Nucl Phys, Italian Inst Nucl Phys)

3 - Journals

Count of articles published in publisher's journals (excluding those indexed in Scoap3)

4 - Publisher’s data

Compare with data provided by the publisher:
DOI, publication date, art no. x journal, INFN affiliation position

5 - DOI

Check for mismatched DOIs

Indexed journals in Scoap3

https://scoap3.org/phase3-journals/

SCOAP^3 Journals, 2017-2024

Publishers and journals participating in the second and third phase of SCOAP^3 (2017-2024) are listed below together with the number of articles funded to date (updated daily). The journals published by the American Physical Society joined SCOAP^3 in January 2018.

Journals which participated in the first phase of SCOAP^3 (2014-2016), are shown here.

Publisher	Journal	SCOAP^3 Coverage*	Author guidelines	Number of articles
Jagiellonian University in Krakow	Acta Physica Polonica B (APPB) is an abstracted, refereed journal published by the Jagiellonian University in cooperation with the Polish Academy of Arts and Sciences. It covers the following areas of physics: General and Mathematical Physics, Particle Physics and Field Theory, Nuclear Physics, Theory of Relativity and Astrophysics as well as Statistical Physics. The journal is fully Open Access.	6%	APPB Guide for authors	164
Hindawi	Advances in High Energy Physics (AHEP) is a peer-reviewed, Open Access journal that publishes original research articles as well as review articles in all fields of high energy physics. The journal is dedicated to both theoretical and experimental research.	42%	AHEP Guide for authors	1116
IOP Publishing	Chinese Physics C (CPC) covers research into the theory, experiment and applications of particle physics, nuclear physics and astrophysics. It is published by the Chinese Physical Society with the Institute of High Energy Physics, CAS, and the Institute of Modern Physics, CAS. This is a hybrid journal.	33%	CPC Guide for authors	733
Springer	The European Physical Journal C (EPJC) presents new and original research results in theoretical physics and experimental physics, in a variety of formats, including Regular Articles, Reviews, Tools for Experiment and Theory, Scientific Notes and Letters.	100%	EPJC Guide for authors	9288
Springer SISSA	The Journal of High Energy Physics (JHEP) is an international, peer-reviewed, online-only, scientific journal owned by the International School for Advanced Studies (SISSA - Trieste, Italy) and published by Springer.	100%	JHEP Guide for authors	22476
Elsevier	Nuclear Physics B (NPB) focuses on the domain of high energy physics, quantum field theory, statistical systems, and mathematical physics, and includes four main sections: high energy physics - phenomenology, high energy physics - theory, high energy physics - experiment, and quantum field theory, statistical systems, and mathematical physics.	100%	NPB Guide for authors	3047
Elsevier	Physics Letters B (PLB) ensures the rapid publication of important new results in particle physics, nuclear physics and cosmology. Specialized editors are responsible for contributions in experimental nuclear physics, theoretical nuclear physics, experimental high-energy physics, theoretical high-energy physics, and astrophysics.	100%	PLB Guide for authors	8091
APS	Physical Review C (PRC) contains research articles reporting experimental and theoretical results in all aspects of nuclear physics, including the nucleon-nucleon interaction, few-body systems, nuclear structure, nuclear reactions, relativistic nuclear collisions, hadronic physics and QCD, electroweak interaction, symmetries, and nuclear astrophysics.	7%	PRC Guide for authors	501
APS	Physical Review D (PRD) is a leading journal in elementary particle physics, field theory, gravitation, and cosmology, appears monthly in two sections, D1 (covering experimental and theoretical particle physics as well as phenomenological aspects of quantum field theory) and D15 (covering gravitation, cosmology, astroparticle physics, formal aspects of the theory of particles and fields, and related areas).	58%	PRD Guide for authors	12548
APS	Physical Review Letters (PRL) is the world's premier physics letter journal. It publishes short, high quality reports of significant and notable results in the full arc of fundamental and interdisciplinary physics research. PRL provides readers with the most influential developments and transformative ideas in physics with the goal of moving physics forward.	10%	PRL Guide for authors	1602
Oxford University Press JPS	Progress of Theoretical and Experimental Physics (PTEP) is an international Open Access journal that publishes articles on theoretical and experimental physics. PTEP is the successor to Progress of Theoretical Physics (PTP), which terminated in December 2012 and merged into PTEP in January 2013.	48%	PTEP Guide for authors	829

*SCOAP3 supports all research articles in journals mostly publishing High-Energy Physics content. Articles submitted by their authors to a High-Energy Physics category on arXiv.org are supported in other journals. The coverage in the table is the fraction of HEP articles in 2017-2018.

OAR migration to InvenioRDM

Next steps

April 2024

- script to insert ONE contribution (paper) with data and metadata (with permission)
- migrate the bulk of the content using the tool

May 2024

- instance with separate volumes from docker, Keycloak, AAI, following: ORCID etc.
- access with ORCID (?) not github for now / testing
- open to public as https://openaccessrepository.org in preview mode

Flow chart for approval of products in INFN OAR