

Particles, Universe, NuClei and Hadrons for the NFDI

A consortium in the NFDI.



TA 4: Report

PUNCH Gen. Meeting, 07.07.2025

H. Enke, AIP

TA4: Work

Many contributions to workshops and projects within NFDI and communities:

- HZB workshop on Accelerators
- Daphne General Meeting 2025
- NFDI Metadata Meeting @ TIB
- NFDI MultiCloud proposal
- NFDI initiative for a workgroup for Auditing, Resource management
- NFDI Open Architecture Group
- Many contributions to PUNCH-2.0 LoI and Proposal shaping

TA4: Work

WP 1 + 4:

Pooled workforce for implementation of SDP components:

- Model and implementation of registry for DRP (RPR)
 - Backbone design and improving data model for RPR
 - Review of metadata requirements => minimal, mandatory elements (* together with WP2)
 - Handling of 'glue' to community metadata
 - Execution environment info
 - Interaction features (creation, extension of DRP)
 - User and Groups management
 - APIs for Input and Output
- User interface for DRP based on REANA
 - User can control access to 'his' workflows
 - Public, PUNCH, Private access
 - Current concept (preview)

TA4: Work

DRP Hub

Welcome back,
admin@drphub.local

NAVIGATION

Dashboard

Browse

Bookmarks

SECRETS & CONNECTIONS

SSH Keys

Git Config

S3 Storage

Reana

C4P

About

FAQ

Settings

Sign Out

Digital Research Products

Discover and manage research tools and workflows

Admin View

Search

Search DRP cards...

Categories

Tags

Sort: newest

7 DRPs available (All users' cards visible)

HM

Halo Mass Distribution

astro

Halos are a result of cosmological simulations.
(https://www.cosmosim.org/c...)

astronomy

🔗

☁

TQ

TAP Query and Plot

astro

This example shows how access the data via TAP/VO from external database and to...

astronomy tap

🔗

☁

T1

Test 1

astro

this card is a first card in the project created after generating

test astronomy

🔗

☁

TC

The CERN Open Data...

hep

Analyzing real collisions data taken at CMS Experiment at the Large Hadron Collider (LHC) ...

particle-physics LHC

+2

🔗

☁

CR

Cosmic Ray Detection

astro

Machine learning pipeline for cosmic ray detection in telescope imagery.

cosmic-rays machine-learning +4

GW

Galaxy Workflow...

astro

Comprehensive analysis pipeline for astronomical data processing using Galaxy...

galaxy astronomy +2

RE

Reana Example for...

general

Plot simple sinus graph with matplotlib

data-processing python

TA4: Work

WP 1 + 4:

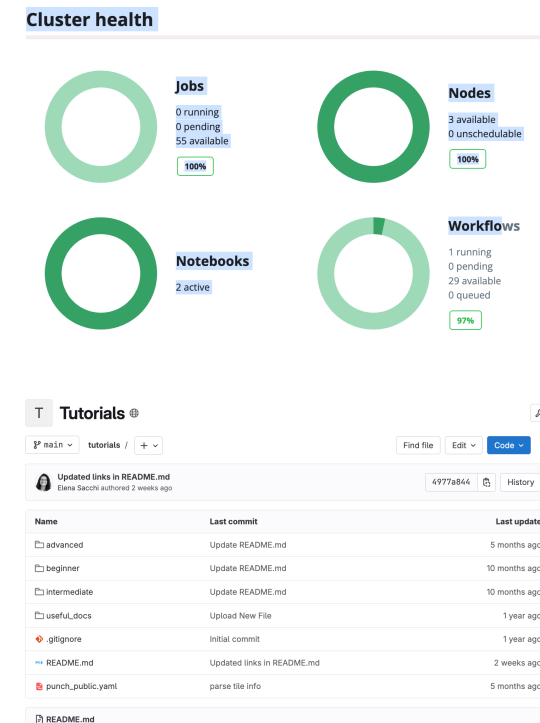
REANA | C4P | S4P interaction

- Stable Kubernetes Cluster Deployment of last stable REANA version @ AIP
- Work on improved User information dashboard
- Work on improved documentation for available resources and selection processes
- Working on Tutorials/Examples
- Support on Mattermost channels :
 - PUNCH/reana-support
 - PUNCH/REANA

Maintenance work on Webservices

rpr-p4n, gitlab-p4n,
helpdesk/zamla, keycloak,

WP 3 : intra.punch, results.punch,
Workflow experiments, testing job execution => Achim's contrib.



TA4: Work

WP 2 (+1+4):

Developing aspects of Metadata Schema:

Leveled Metadata Concept:

- discussion/collaboration with WP1+4 on DRP implementation
- Glue items (for accessing metadata and data of communities)
 - Metadata: minimal set and OAI-PMH protocol agreement
 - Data : still under discussion
- Extended items: many , ongoing assessment
- Relation to Execution environment (REANA, workflows)
- Extended Metadata example collections from all communities

NFDI relations :

- Do we need to use a certain MD system (hotly discussed NFDI topic)
 - Workshop at TIB participation
- Accepted poster for CoRDI 2025 (Victoria T, Ivan K., Harry E.)

Mandatory and extended
Elements of the Registry for
the data model of the DRP 1.0
[https://gitlab-
p4n.aip.de/punch/ta4/wp1/delive
rables-wp1/d-ta4-wp1-1/-
/blob/main/DRP-RPR-
Description.pdf](https://gitlab-p4n.aip.de/punch/ta4/wp1/deliverables-wp1/d-ta4-wp1-1/-/blob/main/DRP-RPR-Description.pdf)
(WiP)

Meeting materials 01.07.25
[https://docs.google.com/docume
nt/d/108xt29jDevGjoFEFGyFXXB
0mv3vENCpxNvR5mNPpuOk/edit
?tab=t.0#heading=h.bmdhn5lh9
mem](https://docs.google.com/document/d/108xt29jDevGjoFEFGyFXXB0mv3vENCpxNvR5mNPpuOk/edit?tab=t.0#heading=h.bmdhn5lh9mem)

TA4: PUNCH 1.0 finish

- Improved support for AAI related frictions in workflows
- Working Dashboard for REANA users
- Registry for DRP 1.0 implemented with working data exchange between RPR and Dashboard
- User & Groups management in RPR
- Handling of 'deletion' of DRP items
- DRP 1.0 with working examples for extended community metadata access (+ support)
- Exploration of AAI beyond current possibilities / application => see PUNCH workshop and results (<https://indico.desy.de/event/49888/>, and <https://www.mentimeter.com/app/presentation/alx88qbw6sr8ivma2bbqgcpocapaxoek/view?question=a9irx354rwfp>)