

**PUNCH4NFDI — TA 7**

Education, Training,  
Outreach, and  
Citizen Science



**PUNCH4NFDI ErUM-Data-Hub Synergy Meeting**

19.06.2024

# TA7 People

## WP1 Training Experts GAU Goettingen



Arnulf Quadt



Baida Achkar

## WP3 Outreach & Schools Uni Bonn



Sonja Felder



David Ohse



Frank Bertoldi

## WP2 Educating Students TU Dortmund



Carsten Burgard



Kevin Kröninger

## WP4 Citizen Science MPIfR/Uni Bonn, KIT



Michael Kramer



Pranav Limaye



Victoria Tokareva

# Task Area 7 focus: Training Experts, Educating Students



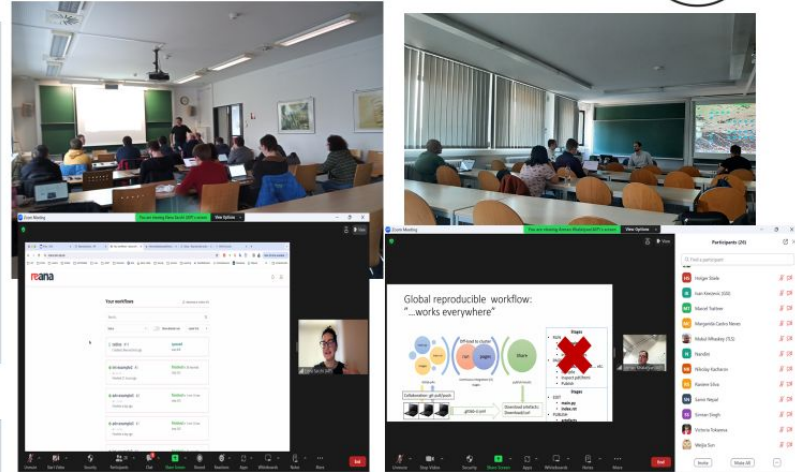
## WP1 - Training Experts

- Establishing the **PUNCH Young Academy PYA** with regular training events
- Career development support for the PhD and Postdoc PUNCH staff through **PYA one-to-one mentoring service**
- New Content and New Concepts in training scientists for 2024:** Project Management and Leadership Skills in-person training, coaching program for female punch scientists under development.

## WP2 - Educating Students

- Market 2-part survey of available teaching material and concepts related to data literacy
  - agreed with DALIA to host the materials database
- Conducting structured phone interviews: Data in Physics Studies White Book (in collaboration with DPG/KFP and NFDI consortia)
- Ramping up of FAIR teaching activities in TU Dortmund: Creation of a new university course and re-invention of existing lab experiment.

Physical Sciences  
in nfdi



Part 1



Part 2





# Task Area 7 focus: Outreach & Schools, Citizen Science



## WP3 - Outreach & Schools

- **LEGO ALMA** Showcasing interactive exhibit at science festivals in Germany, demonstrating radio interferometry
- **Tracing the Universe** (for MS Wissenschaft) Providing Open Educational Resources related data-intense science via [faszination.uni-bonn.de](https://faszination.uni-bonn.de)
- **Machine Learning Masterclass** (co-operation with Netzwerk Teilchenwelt) Offering workshops for high schools on modern particle data analysis tools
- **SciCoDaLiC & Bytes4Science** Starting inventory and developing board game
- **Teacher Training & Intro2SciComm** For teachers & communicating scientists



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## WP4 - Citizen Science

Mapping out potential research application in Citizen Science CitSci: Literature review of terminology, audience and methodologies used in CitSci projects.

[DPG-2024-talk](#)

- Preparing data sets and providing soft- and hardware infrastructure: Conversion of the Effelsberg old raw data to 'FITS' format for broader and enhanced accessibility (beyond Radio Astronomy Community).
- Use of MeerKAT data set of globular clusters for Citizen Science (together with AEI-Hannover)



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# TA7 - WP1 : Training Scientists - 2023

## Topical workshop on PUNCH4NFDI/TA2 tools:

19 participants, 9-10 March, Göttingen. - **A**

## Advanced training on PUNCH4NFDI tools and services:

17 participants, 11 October, Munich. - **A**

## Women in PUNCH4NFDI

### Coffee Break:

Celebrating the International Day  
for Girls in Science, 13 Feb

## PUNCH4NFDI Young Scientists Career Development:

**PYA One-to-One Mentoring**  
1st round, launched in May.

## Broad-scope training on Professional Git and clean code:

11 participants, 6-7 July, Online. - **B + I**

- **Beginner (B)**
- **Intermediate (I)**
- **Advanced (A)**

# TA7 - WP1 : Training Scientists - 2024

## Advanced training on REANA:

**22\*** participants,  
06. Feb, online. - **A**

## Broad-scope training on Professional Git and clean code:

**13\*** participants, 23-24 May,  
Online. - **B + I**

**PUNCH4NFDI Young Scientists  
Career Development:  
PYA One-to-One Mentoring**  
2nd round, launched in March.

## Broad-scope training on Containers for Use with Docker, Apptainer and Compute4PUNCH:

**14\*** participants, 16 April, Online. - **I + A**

**Advanced training on PUNCH4NFDI infrastructure  
(REANA+Compute4PUNCH+Storage4PUNCH+  
AAI related items)**

Planned on 26-27 Nov, Bonn - **A**

- **Beginner (B)**
- **Intermediate (I)**
- **Advanced (A)**
- **\* Participation is open for none-PUNCH4NFDI applicants**

# PUNCH4NFDI and ErUM-Data-Hub Synergy

## Focus on developing a common platform to host training and teaching materials

1. [DALIA project](#) is supported by the NFDI efforts. Prototyp, Feedback Phase
2. [DALIA presentation](#) at the EduTrain NFDI Section Meeting on 16.05.2024
3. [PUNCH4NFDI](#) is willing to support the development of a platform to host the teaching and training material in RDM. Should not be a search engine!
4. A plan to include material produced /collected by PUNCH, [FAIRmat](#), [DAPHNE4NFDI](#),...
5. Focus on detailed and rich Metadata, + flexible format.
6. Varied hosted material formats: pdf, png, jpg, txt, csv, html, xml, mp4, zip
7. Notebooks, tutorials, support for GitHub integration?

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# Thank you!

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