TA5 matters

Michael Kramer Andreas Redelbach

11/04/2024

TA5 - update

- Next deliverable D-TA5-WP2-3 Test environment for identifying highly complex (multi-parametric) signals in huge data streams. → postponed to June, Overleaf document started
- 2 members for Publication Committee found (thanks Nicole and Vadym)
- Developments for **Machine Learning-based Pipeline for Pulsar Analysis**
  - Repository https://gitlab-p4n.aip.de/punch/ta5/wp4/ml-ppa
  - Documentation https://gitlab-p4n.aip.de/punch/ta5/wp4/ml-ppa/gitlab-profile/-/blob/main/PUNCH_interTwin_project.pdf
  - Integration tests at Jülich: JupyterHub session has been tested successfully
- Further work and testing for integration into Storage4PUNCH/Compute4PUNCH: Possible topic for an upcoming PUNCHLunch
- Meeting for Bayesian approaches TA3-WP1 - TA5-WP1 on April 17 9:00 am → interest beyond WP1?
- General meeting on June 9

Workshop for ML on FPGAs

Discussions for follow-up of meeting (last year at DESY), possibly jointly with XFEL/DAPHNE

In person workshop and/or tutorial for 2 days

Weeks in September 9-13 or 23-27 look most attractive, poll for preference (tba)

Ideas collected: https://indico.desy.de/event/44348/?note=1593#3-discussion-of-in-person-work

Workshop of new **FPGA Developers' Forum at CERN on 11-13 June 2024** https://indico.cern.ch/event/1381060/

Agenda today

TA5 Meeting

Donnerstag 11.04.2024, 09:00 → 10:15 Europe/Berlin

Andreas Redelbach (Frankfurt Institute for Advanced Studies), Michael Kramer (Max-Planck-Institut fuer Radioastronomie)

Beschreibung https://eu01web.zoom.us/j/93015962033?pwd=QzlPZm1TVTlkQ1lGam85WDJjbzVTZz09

Internal documentation: https://intra.punch4nfdi.de/?md=/docs/TA5/overview.md

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09:00 → 09:15 **TA5 matters** 15m

Sprecher: Andreas Redelbach (Frankfurt Institute for Advanced Studies), Michael Kramer (Max-Planck-Institut fuer Radioastronomie)

09:15 → 09:35 **Provenance for astronomy data** 20m

Sprecher: Kristen Lackeos (Max-Planck-Institut fuer Radioastronomie)

09:35 → 09:45 **Publication of WP1 document** 10m

Sprecher: Dr. Vladimir Lenok (Universität Bielefeld)

Backup

Status of documents/deliverables

Name	Content finalized	Sent to MB/EB	Executive summary	Results page	Zenodo
D-TA5-WP2-1 Curation & metadata schemes for dynamic filtering				Added Mar 13	https://zenodo.org/records/10692169 But not listed when searching for „PUNCH4NFDI“ in Zenodo
D-TA5-WP2-2 Strategy concept for identifying highly complex (multi-parametric) signals in huge data streams					
D-TA5-WP3-1 Specifying the concept of a dynamic archive					
D-TA5-WP1-1 Report on impact of on-line filtering on discovery potential					

→ Goal: Deliverables in Zenodo soon, following PUNCH Publication Policy

Sending documents to MB
Publication via Zenodo and Results page

Pdfs in the intranet:
https://gitlab-p4n.aip.de/punch/intra-docs-content/-/tree/master/files/TA5/Documents_deliverables

Results page

Documents

Here you can read and download documents related to PUNCH4NFDI.

Official and Legal Documents

PUNCH4NFDI Consortium Proposal (reduced version)

Letter of Intent

PUNCH4NFDI High-Level Goals

AAI Requirements PUNCH4NFDI

Metadata

Overview of petabyte-scale metadata storage methods and frameworks

Curation and metadata - concepts for data irreversibility

Deliverable Reports

Communication

Science Communication

Dissertations and Thesis Works

Where to integrate other TA5 documents?

https://results-preview-punch4nfdi.sirrah.aip.de/?md=/docs/Documents/documents.md

Interactions with TA2

- Contributions to / use cases for Compute4PUNCH or Storage4PUNCH (under discussion): Are there option to share larger data, on longer timescales (radioastronomy data sets)?

  → **first store only data of "a few TB" on the existing infrastructure** to start some tests etc.

  As soon as we need to have more storage permanently, we should also consider integrating more ressources

  Useful links: https://gitlab-p4n.aip.de/punch/intra-docs-content/-/blob/master/docs/TA2/WP1/StoragePrototyping.md

  https://gitlab-p4n.aip.de/punch/intra-docs-content/-/blob/master/docs/TA2/WP2/Compute4PUNCH_Documentation_Users.md

  https://gitlab-p4n.aip.de/compute4punch/tutorials/c4p_lofar_tutorial_general_meeting_09_2022

- ML-PPA project: Tests using containers for digital twin simulations at Jülich
- Commands for setting up access to storage prototypes documented (G. Dange)