

TA5 Metadata document

Inter-TA meeting and publication (tbd)

- Metadata document sent to MB on December 12
- No substantial comments or modifications since then, see also link to document:
<https://www.overleaf.com/4394671859tvxrcknqksxr>
- **Need for final coordination of metadata document with other TAs:**
- Inter-TA meeting to be scheduled (in March or April)
 - Final modifications of content within TA5 (**deadline March 3**)
 - Volunteers to go through the document?
 - Re-send document to MB, asking for **feedback *before* inter-TA meeting**
 - Discussion of open points and steps towards publication (in that meeting)

Publication:

- Enhances visibility and eases future referencing
- Zenodo publication (favoured also by PUNCH management) allows necessary updates
- Possible publication in journal Computing and Software for Big Science
<https://www.springer.com/journal/41781>

Deliverable D-TA5-WP2-2

Strategy concept for identifying highly complex (multi-parametric) signals in huge data streams

- First discussions in January
- Document in overleaf

<https://www.overleaf.com/1171485252mfdbrngnqzjy>

→ Contributions assigned and needed

1	Challenges in data irreversibility	<i>Michael</i>
1.1	Data irreversibility and dynamic metadata	
1.2	Requirements for future astrophysics experiments	
1.3	Requirements for high energy physics experiments	
2	Technologies for data-intensive processing	
2.1	Requirements for massively parallel processing	<i>Vadim</i> . . .
2.2	Multi-core CPU	
2.3	GPUs and hybrid architectures	<i>Andreas</i>
2.4	FPGAs	
2.5	Machine learning	<i>Arno</i>
2.6	Frameworks for developments	<i>Hermann</i>
3	Connection to other WPs and TAs	
4	Use cases and workflows	
4.1	Identification of pulsars/fast radio bursts	<i>Ramesh</i>
4.2	Detection of anomalies in detector response	<i>Arno</i>
4.3	Identification of particle decays in software-based triggering	<i>Hans</i>
4.4	Outside Triggers and sending Triggers	<i>Jakob</i>
5	Conclusions	

Workshop: ML on FPGAs

To be discussed

Inquiry of **EU-XFEL** project (in DAPHNE): „**Workshop to Discuss ML in FPGA Efforts**“

- EU-XFEL was planning to organize / co-organize a **One-Day workshop or seminar**, where professionals from different institutions could join and present their efforts and experiences with Machine Learning inferences on FPGA platforms or Hardware Acceleration ideas in general. As we have the TA5-WP2, mainly dedicated for this, will it be possible to use the network for such collaboration.
- Date / place / logistics are still to be decided

For discussion:

- Virtual and/or in-person workshop
- Maybe one virtual meeting to discuss scope and organization
- Interesting option (2-day workshop):
 - 1st day TA5-WP2 internal meeting
 - 2nd day public meeting with EU-XFEL(DAPHNE)
- Constraints for dates?