TA 3 Monthly Update

Overall:

- Intermediate milestones set up in most WPs

Status of deliverables/intermediate milestones

- WP2: created list of often used (astro) simulation codes
- WP4: test radio imaging workflow deployed on TA2 services

WP status

- WP1: BAT
  - in-person BAT.jl developer meeting last week, discussed goals for upcoming release, formulated next steps
  - GraphNeT: the general neutrino telescope software for iceCube, KM3NeT, P-ONE, etc was further developed -> this should become a workflow in the data science platform in the future
  - The batty interface of BAT.jl is being tried out in the KATRIN group for their data analysis (-> this would be another data science platform integration)
  - Some work on neural spline sampling together with the MPP people, that will be part of BAT.jl
- WP1: nuclear,
  - M. Schmelling (MPI-K) gave presentation on statistical methods, storing data and response functions for reuse
- WP2: Simulations
  - finished the survey on astro codes, started to analyse the results, currently writing a report about it
  - performed benchmark tests for „Rebound“ and „Genga,“ providing makefiles for them (SP)
  - started to write a paper on reproducibility of astro simulation results (SP)
  - Setup of ATHENA code in Jülich close (MB)
  - Benchmark testing for Lattice codes (FK, CS, TW+)
- WP3: ML
  - MB setting up monthly meeting
  - New personnel: Nicolas Baron Perez (Hamburg/65%)
  - Two projects in exploration phase: 1) Generative Networks for radioastronomical surveys 2) Anomaly detection for astronomical images
- WP4: Joint analysis of datasets
  - Developed milestones for radio imaging workflow test involving multiple pipelines, achieved first milestone, now have weekly F2F mtgs
  - Discussions with TA2 to provide feedback