

# LMU and FIDIUM

Kick-off Workshop  
Dec 16, 2021

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- Team
- Funding: requested vs approved
- Past experience and related activities
- Plans for FIDIUM

# LMU team

- Thomas Kuhr (PI, Belle II)
- Guenter Duckeck (ATLAS)
- Nikolai Hartmann (Belle II + ATLAS)
- David Koch (Fidium position since Oct 21)
- + several other people strongly involved in Belle II & ATLAS software & computing

# LMU – Fidium funding

- Original Antrag:
  - 1 FTE in TB2 (AP2.2 & 2.4)
  - 1 FTE in TB3 (AP3.1 & 3.2)
- Approved:
  - 41 PM in TB3
  - None for TB2
- → we will focus on AP3.1 & 3.2
  - But we will keep in touch with TB2
    - We actively use caching service at our ATLAS T2
    - Part of our TB3 activities build on Caching & Data lakes

# LMU – experience and related activities

- IDT-UM A+B: focus on caching services using XCache (Xrootd based cache)
  - Setup at LRZ-LMU T2
  - Integration into ATLAS workflow
  - Contributions to XCache developments and optimization
- Belle II group strongly involved in Belle II software & analysis
  - Software training, ML for simulation and analysis, framework, reconstruction, Tardis instance on C2PAP , ...
- ATLAS group strongly involved in ATLAS computing
  - Operating WLCG Tier-2 since ~2006
  - ATLAS core-computing activities (Panda, Hammercloud, Rucio, ...)
  - Modern data formats, columnar analysis, cloud computing
- Computing resources:
  - WLCG T2 (ATLAS)
  - Opportunistic systems in use for ATLAS & Belle II: SuperMuc HPC, C2PAP, LRZ cloud

# LMU – plans for FIDIUM

- AP3.1:
  - Setup caching for opportunistic resources
    - e.g. LRZ SuperMUC-NG and LRZ cloud
    - Connect to data-lakes
    - Integrate with experiment specific services
      - Panda/Harvester (ATLAS), Dirac (Belle II), Rucio (ATLAS & Belle II)
- AP3.2:
  - Analysis facility technologies for ATLAS & Belle II
    - Data formats, python data science ecosystem
    - Reference analysis cases for ATLAS & Belle II
      - ROOT event loop vs Rdataframe vs Python columnar style
    - Scale-out tests on available resources
      - LRZ, Desy-NAF, cloud systems, ...