



ACC Cyfronet AGH-UST

Computing center for CREDO collaboration

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ACC Cyfronet AGH-UST

- established in **1973**
- part of **AGH University of Science and Technology** in Krakow, Poland
- provides **free** computing resources for scientific institutions
- centre of competence in **HPC** and **Grid Computing**
- member of **PIONIER NREN** and operator of **Krakow MAN** for research and education

Projects



Resources

- **Top500** ranked supercomputers/clusters
 - **Prometheus** (2.4 PFLOPS)
 - **Zeus** (375 TFLOPS)
- Storage
 - **Disk**: 20+ PB
 - **Tape**: 30+ PB
- **Cloud** (IaaS, PaaS) for scientific resources
- High-bandwidth national and regional **network**
- **Disaster recovery center**
- **PLGrid** infrastructure



2140 TFLOPS in CPUs + 256 TFLOPS in GPUs
2232 nodes, 53568 CPU cores, 279 TB RAM
10 PB usable disk space @ 180 GB/s



2.4 PFLOPS, #59 ON TOP500

Know-how

- Distributed infrastructures
 - PLGrid
 - EGI, PRACE
 - Scientific infrastructures
 - WLCG (500 TB)
 - CTA (600 TB)
 - Belle, Nedm, Gaussian VO
- Code modernization and optimization
- Scientific gateways and portals
- Data management tools

CREDO participation

- Main resource center for unique CREDO data
 - Online (disk) and nearline (tape) storage of experimental data
 - Data ingestion and sharing
 - Local data processing and analysis
 - Supercomputers
 - Productivity tools (i.e. hosted Jupyter notebooks)
- Design support for
 - data management
 - simulation/analysis software
 - project IT infrastructure



Cyfronet CREDO goals

- Reliable, secure Data Center
 - Data never lost, always accessible
- Productive computing resources
 - Easy-to-use but high performance
- Open data
- Open protocols
- Utilize industry and community standards
 - Learn from the best, don't follow mistakes



Thank you!

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