

Status and Future Prospects of the KASCADE Cosmic-ray Data Centre KCDC

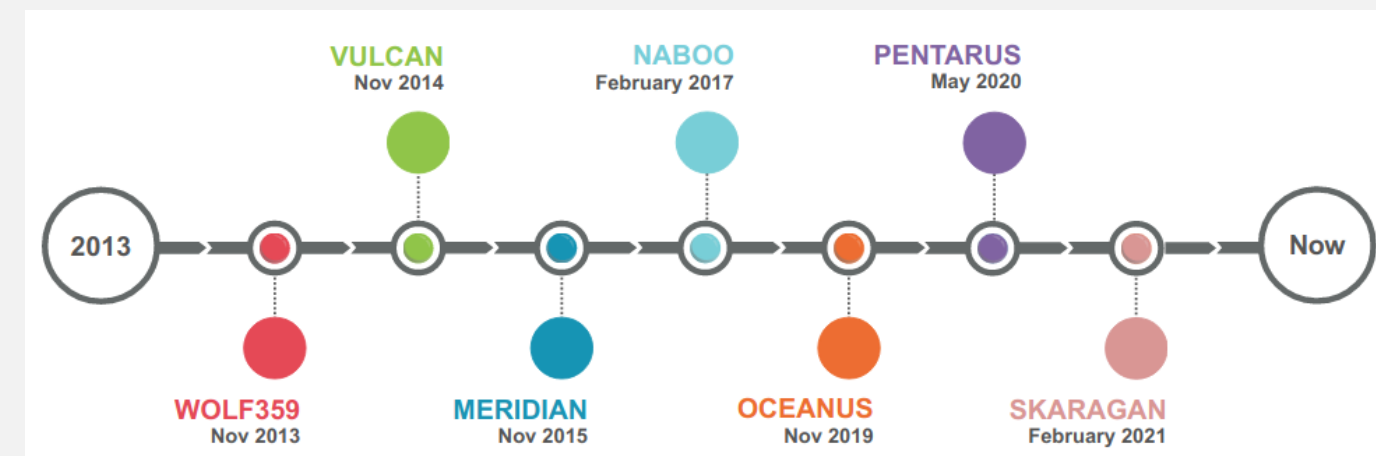
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[PoS \(ICRC2021\) 422](#)

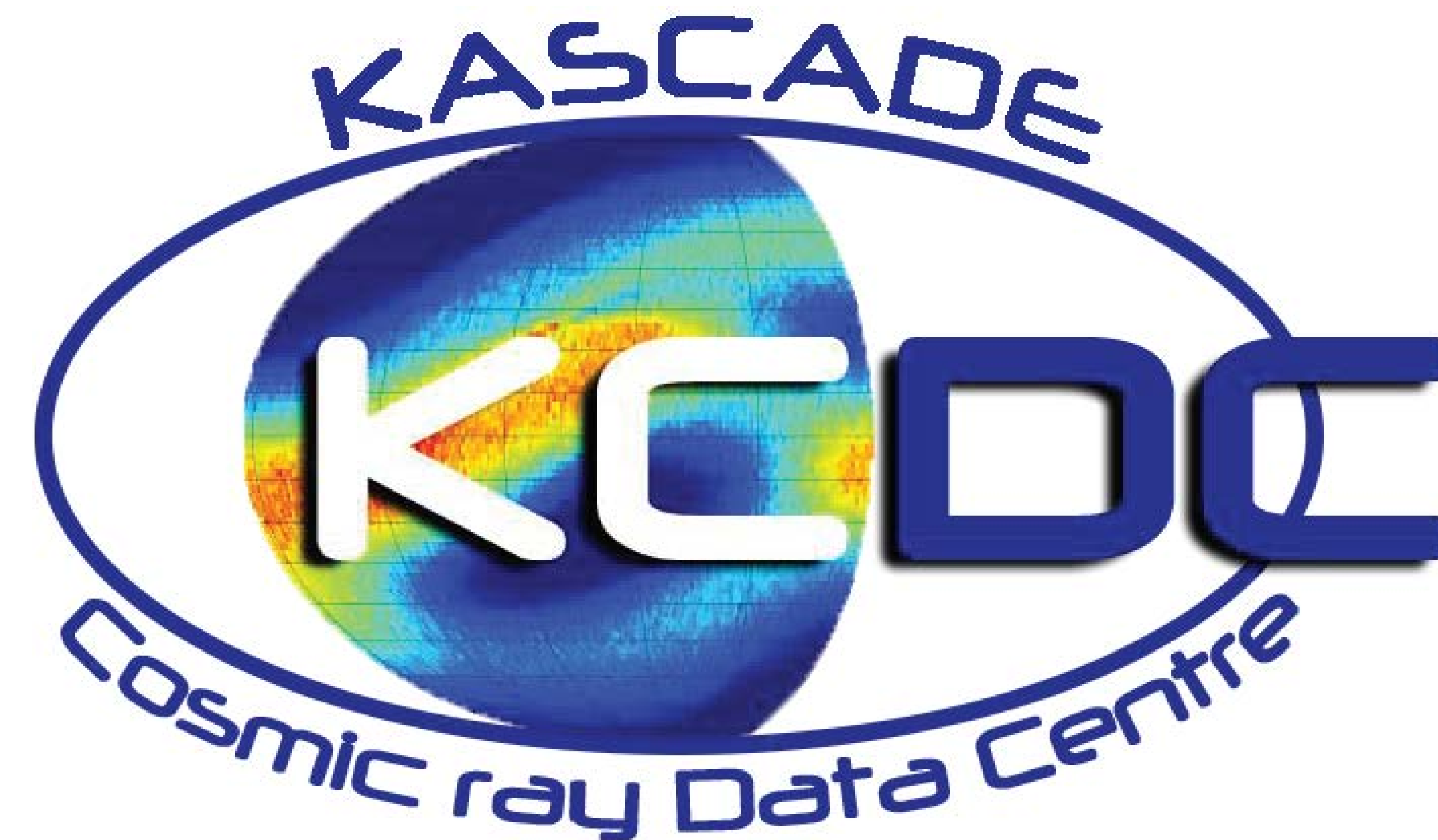
<https://kcdc.iap.kit.edu>

- KCDC is a web-based platform to provide scientific data for the general public
- KCDC is to archive original research data such as from KASCADE
- KCDC is to offer long-term scientific data for the community as well as for students and the interested public
- KCDC is load on a sophisticated web portal

- First release in 2013
- 433 million events from KASCADE and KASCADE-Grande including data on detector level
- Full air-shower simulations according to data
- Easily extendable and modifiable modular software design
- Many releases followed:



History of KCDC releases



Open Data ≠ Outreach

- as open data serves for community and the research field and the society
- outreach profits from open data
- KCDC is a platform for both, open data and outreach

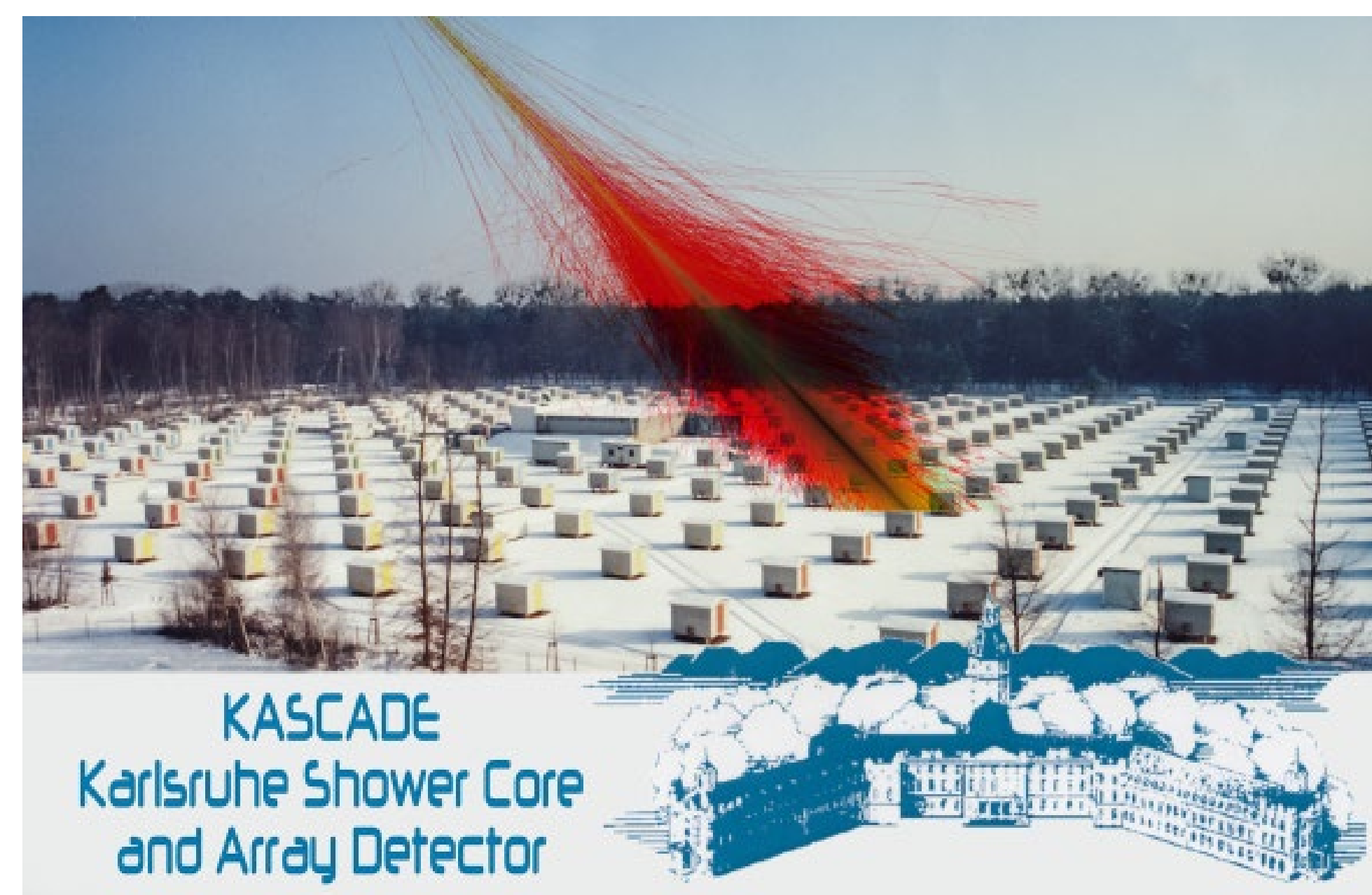
What's new?

- Independent Data Shops: Allows for Multi-Experimental Analysis
- Data of new experiment: Maket-Ani
- Jupyterhub: <https://jupyter.iap.kit.edu> supports online, in-KCDC analyses
- API (Application Programming Interface): Improves systemic data handling
- KCDC masterclass for students: [PoS \(ICRC2021\) 1378](#)
- More spectra of various experiments for download

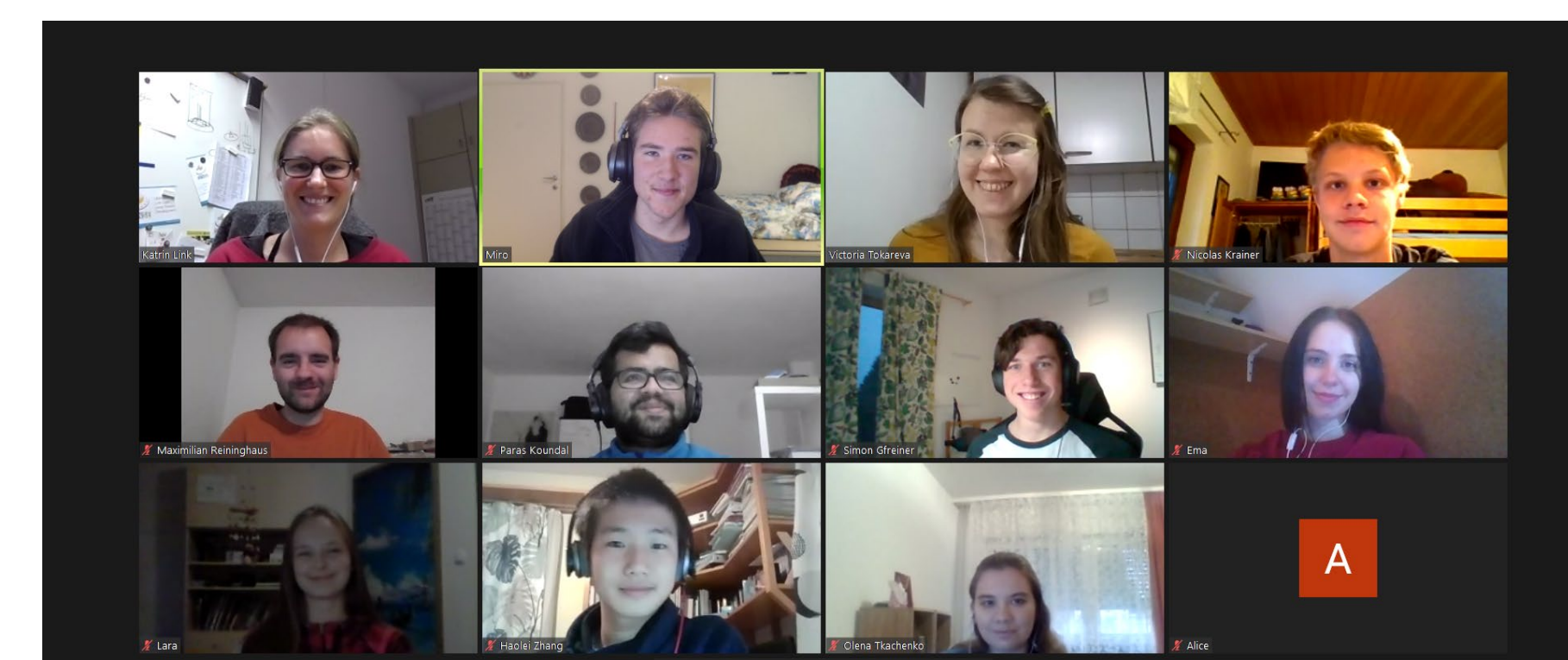
What's next?

- SKARAGAN 2.0 (July 2021): upgrade on all software components (e.g. Ubuntu 20.04; deactivate ftp, replace by browser solution)
- QUALOR (end 2021): replacement of sharded cluster to speed up processing of requests.

KASCADE Experiment



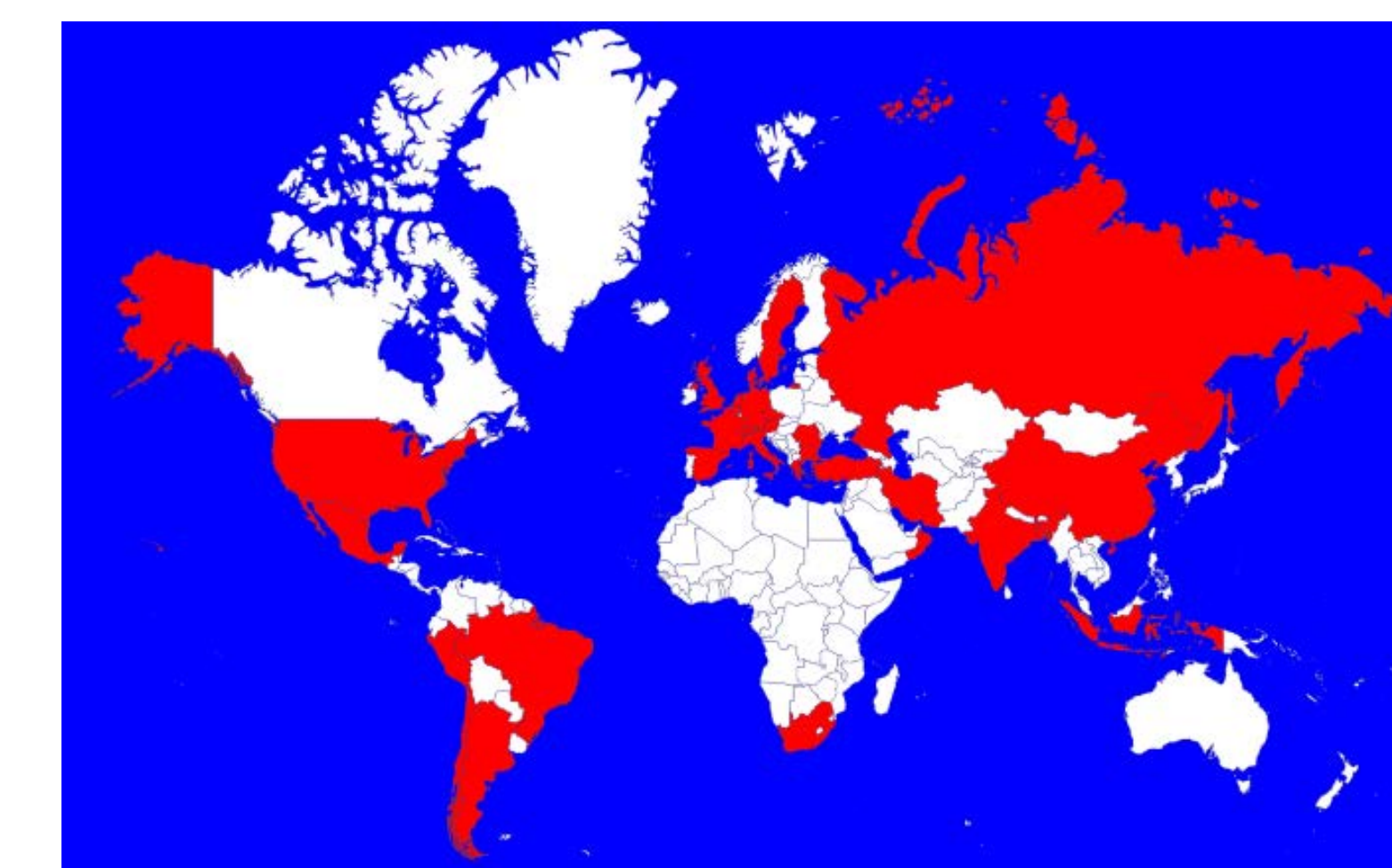
KCDC online masterclass



KCDC @ International Cosmic Day



KCDC user map



Maket-Ani experiment in Armenia



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