

# PUNCHLunch –

## the online lunch seminar of the PUNCH4NFDI Consortium

Every second Thursday, 12:30-13:30 hrs: keynote and discussion



---

Thursday, 28 July 2022, 12:30 hrs:

**Prof. Dr. Lukas Heinrich (Technical University of Munich)**

### The Grid in the Cloud

**A vision for analysis facilities scaled to 100k cores**

#### Abstract:

The ATLAS experiment at CERN is one of the largest scientific machines built to date and will have ever growing computing needs as it explores higher energy and luminosity proton collisions. Recent R&D on the integration of cloud infrastructures with ATLAS' Worldwide LHC Computing Grid resources identified Kubernetes as a commonly available, ideal substrate. While Kubernetes is widely known for its service management capabilities, it also offers powerful batch controllers for containerised workloads. We exploited these capabilities to build ephemeral batch clusters with over 100k vCPU to process tasks that require quick turnaround, make available GPU resources that are not widely available in our own infrastructure, or create interactive facilities, where users can easily spin up private clusters for their distributed analysis from a notebook.

#### Connection details:

**ZOOM Meeting “PUNCHLunch seminar”:** <https://indico.desy.de/event/35453/>

**Webinar ID: 919 1665 4877, passcode: 481572**

**Next event: to be defined**

---

#### Connect to PUNCH4NFDI:

Twitter: @PUNCH4NFDI

Mail: [punch4nfdi@desy.de](mailto:punch4nfdi@desy.de)

Web: [www.punch4nfdi.de](http://www.punch4nfdi.de)

