

# VISPA – Cloud Services for Modern Data Analysis

## From Anywhere

- User interface realised as website
  - Accessible **through any browser**
  - Maximized **portability**
- **No setup** required
- Continue where you left off across devices

## To Anywhere

- Use any **SSH-reachable** resource
  - Supports SSH-tunneling
- All **web requests** proxied through SSH connection
  - no firewall exceptions needed
- Uses pre-existing software, but bootstrapping possible



## Web Apps

- Work environment via **JupyterLab**:
  - Editor, Terminal, File Browser
  - Fully **extensible** (e.g. JSROOT)
- **Integration** of browser-based dashboards: e.g. TensorBoard







## VISPA Cluster

- Preconfigured default backend
  - Transparent user authentication
- Optimised IO-latency
- Backed by HTCondor:





*facilitates*

## Research

- Physics:
  - CMS PAS (HH → bbWW) 
  - Deep Learning @Pierre-Auger 
  - Ongoing CMS analyses
  - Lorentz Boost Network 
- Computing:
  - Cache-aware Dask cluster 
  - Prototype for next-gen. data analysis



## Education

- Lectures:
  - Deep Learning 
  - Bachelor/Particle Physics
- Workshops:
  - ErUM-Data-Hub events 
- Getting started:
  - Students (e.g. thesis work)
  - Deep Learning newcomers

