

Status of RUG-GSI/FAIR use cases for ESCAPE and integration challenges with WP2

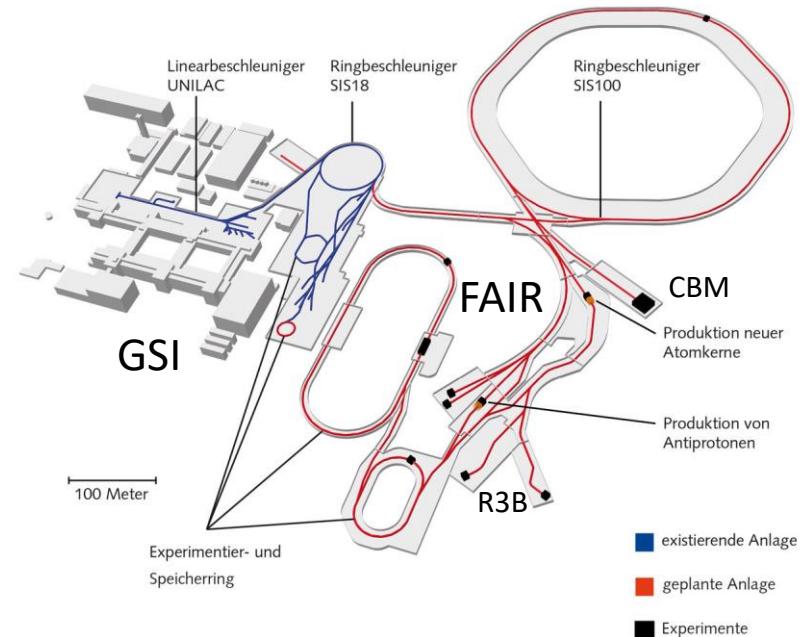
Maisam M. Dadkan

On behalf of the RUG-FAIR/GSI collaboration for ESCAPE

WP5-WP2 Integration Workshop, 6 April 2021

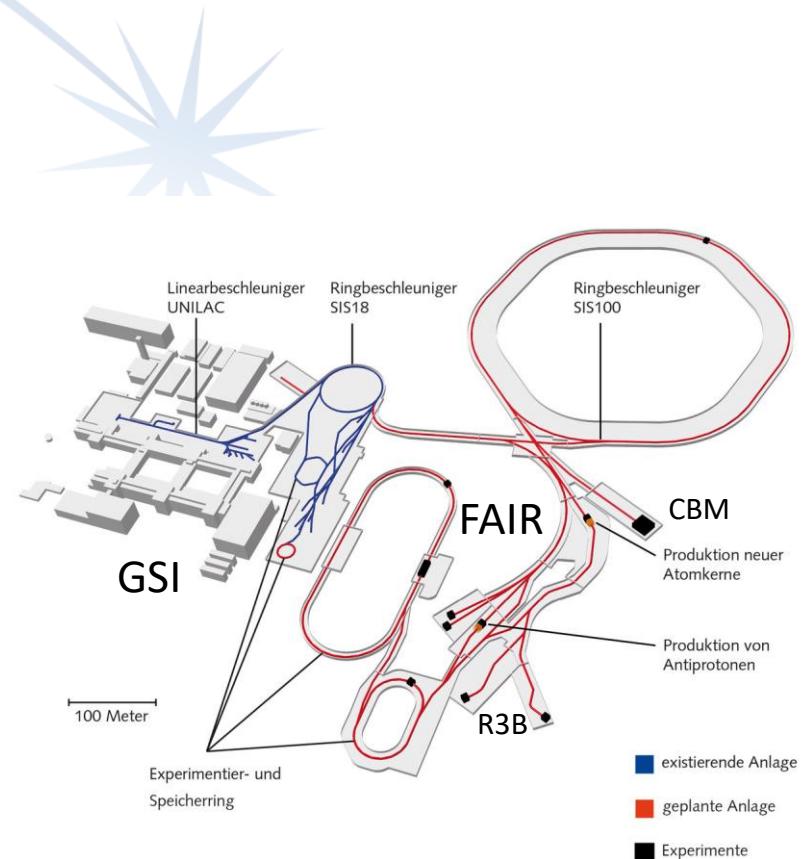
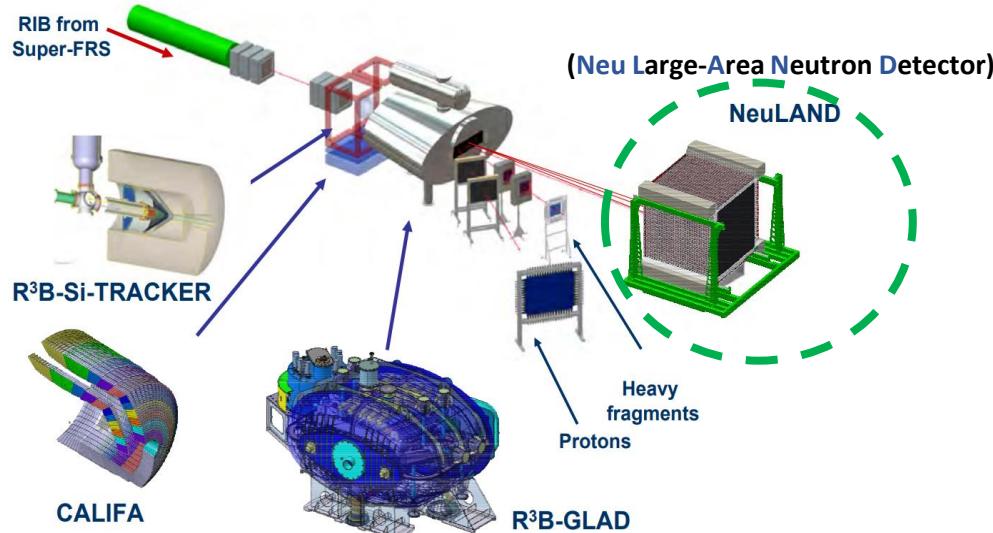


- Introduction to R3B & CBM
- Status of the use cases
- IDAP-DIOS Integration challenges



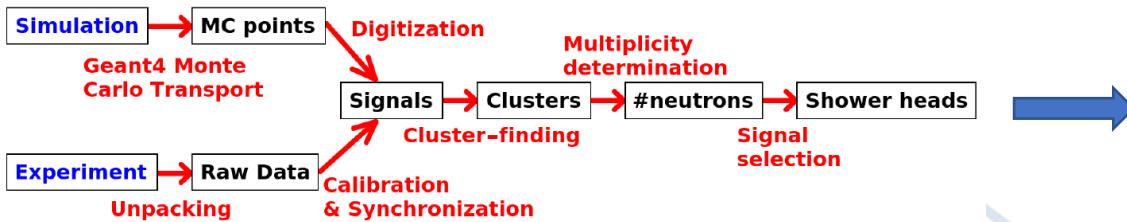
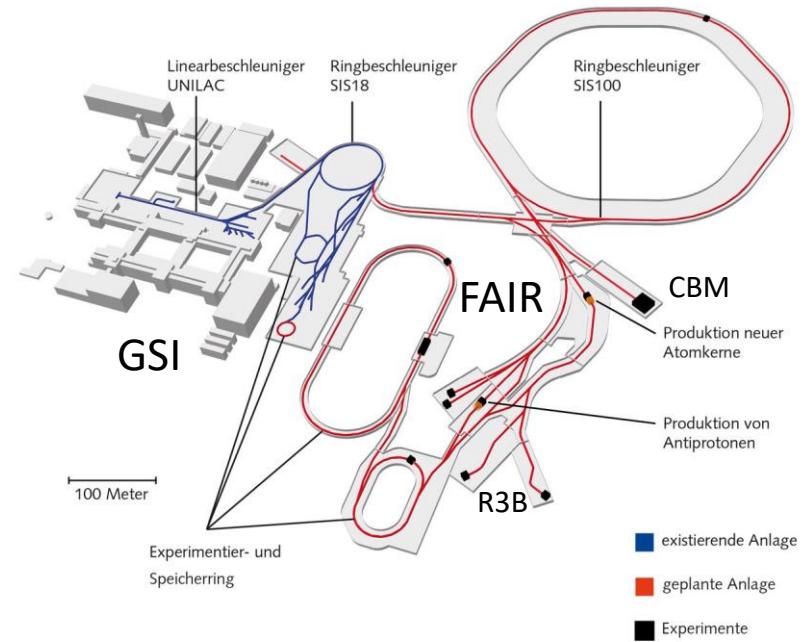
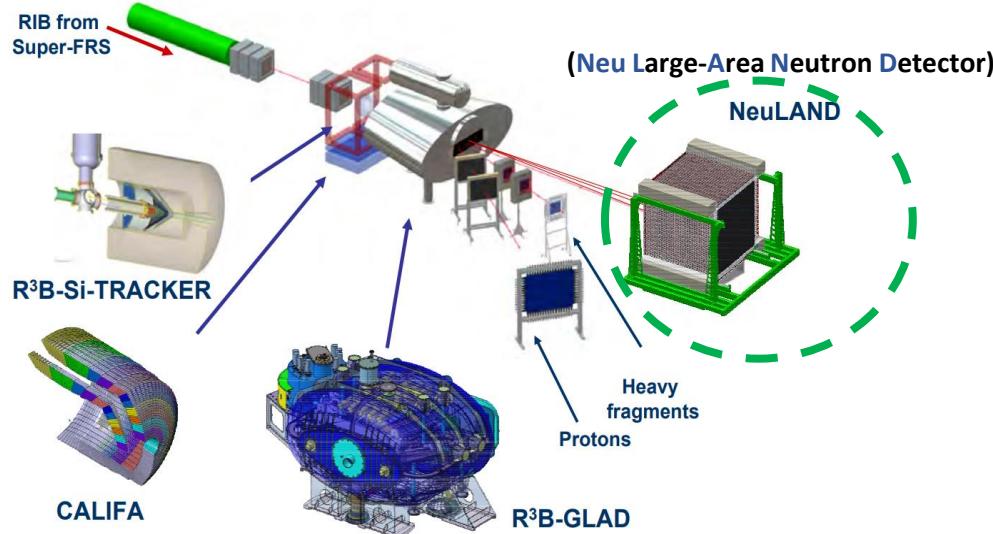
R³B

Reactions with Relativistic Radioactive Beams



R³B

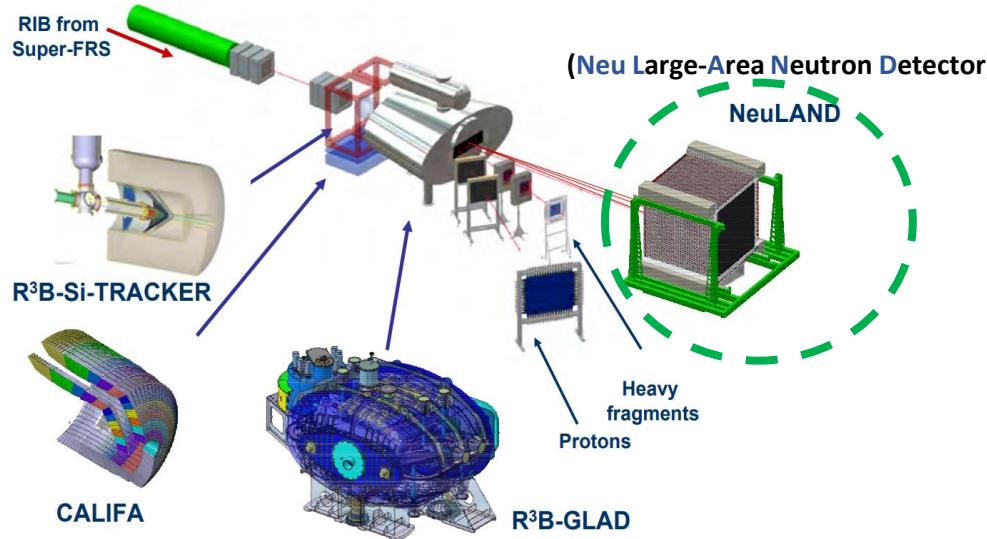
Reactions with Relativistic Radioactive Beams



- Multiplicity determination
- Shower head determination

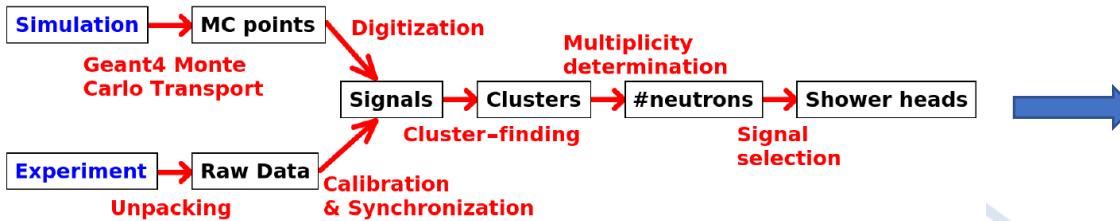
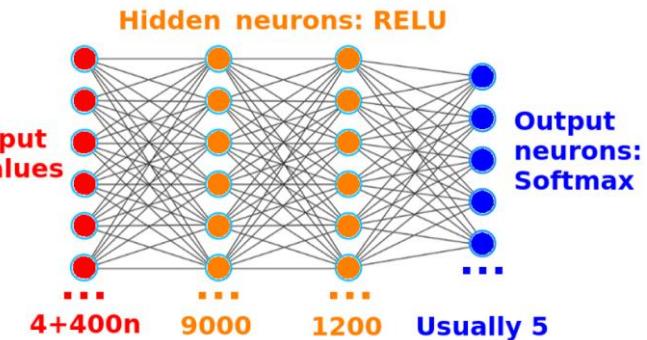
R³B

Reactions with Relativistic Radioactive Beams



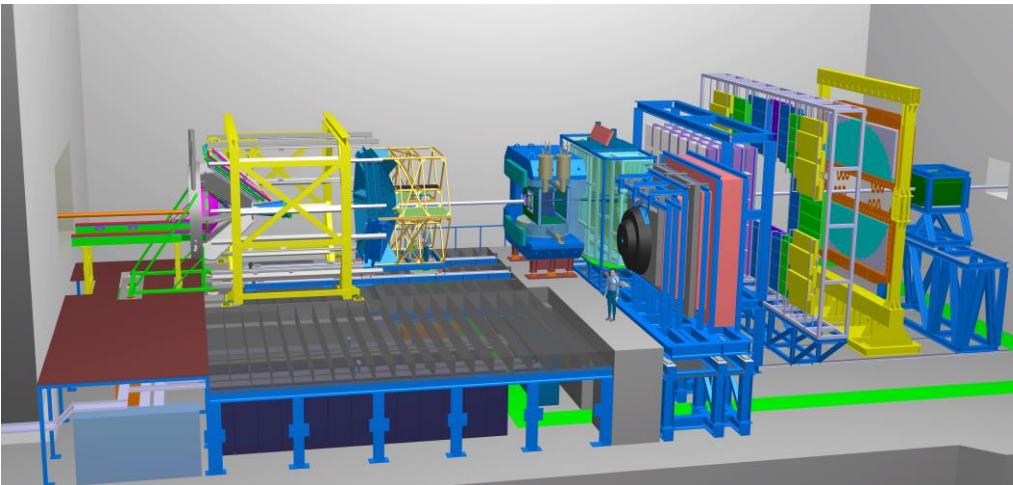
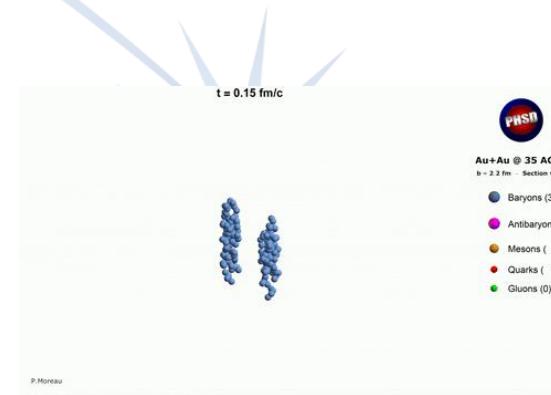
Analysis methods:

- Technical Design Report (TDR)
- Deep Neural Network (DNN)



- Multiplicity determination
- Shower head determination



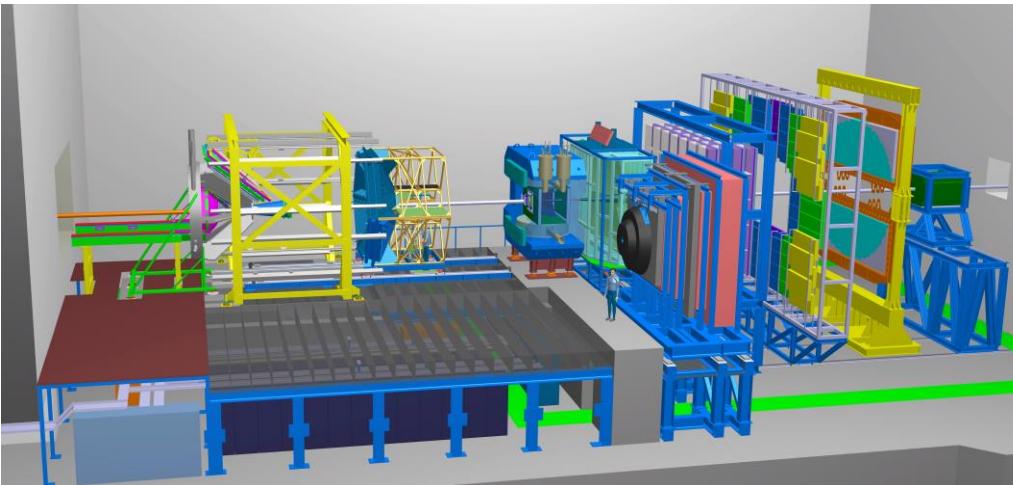
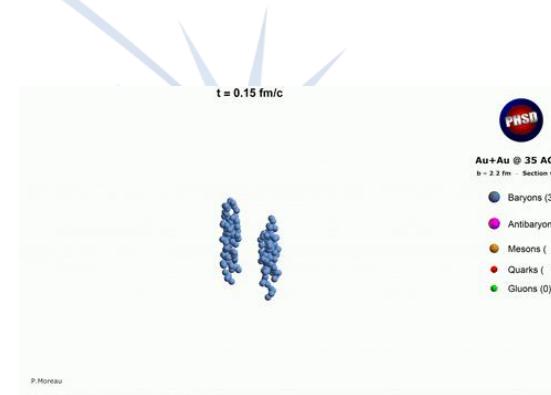


- High baryon densities using high-energy nucleus-nucleus collisions
- Reaction rates up to 10 MHz
- Data rates up to 1 TB per second
- CBMRoot for data analysis





The Compressed Baryonic Matter

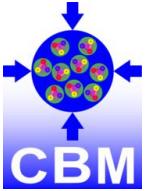
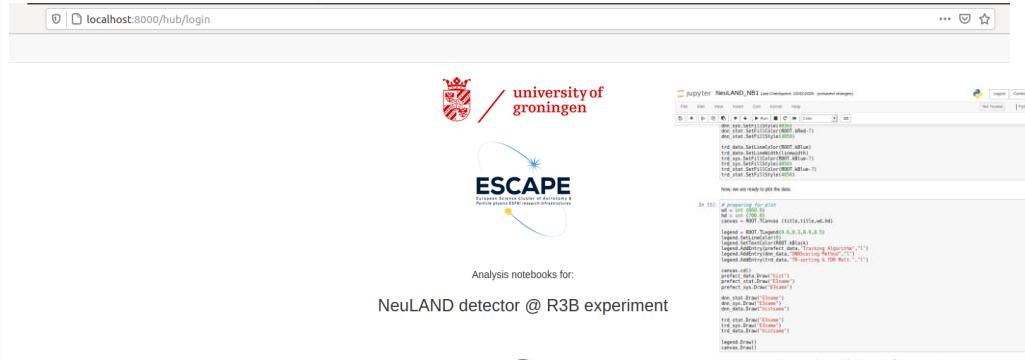


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Status of the use cases

R³B

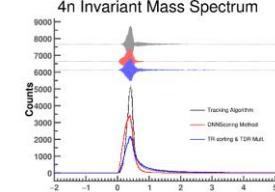
localhost:8000/hub/login

university of groningen
ESCAPE European Science Cluster of Astronomy & Particle physics ESFRI research infrastructures

Analysis notebooks for:
NeuLAND detector @ R3B experiment

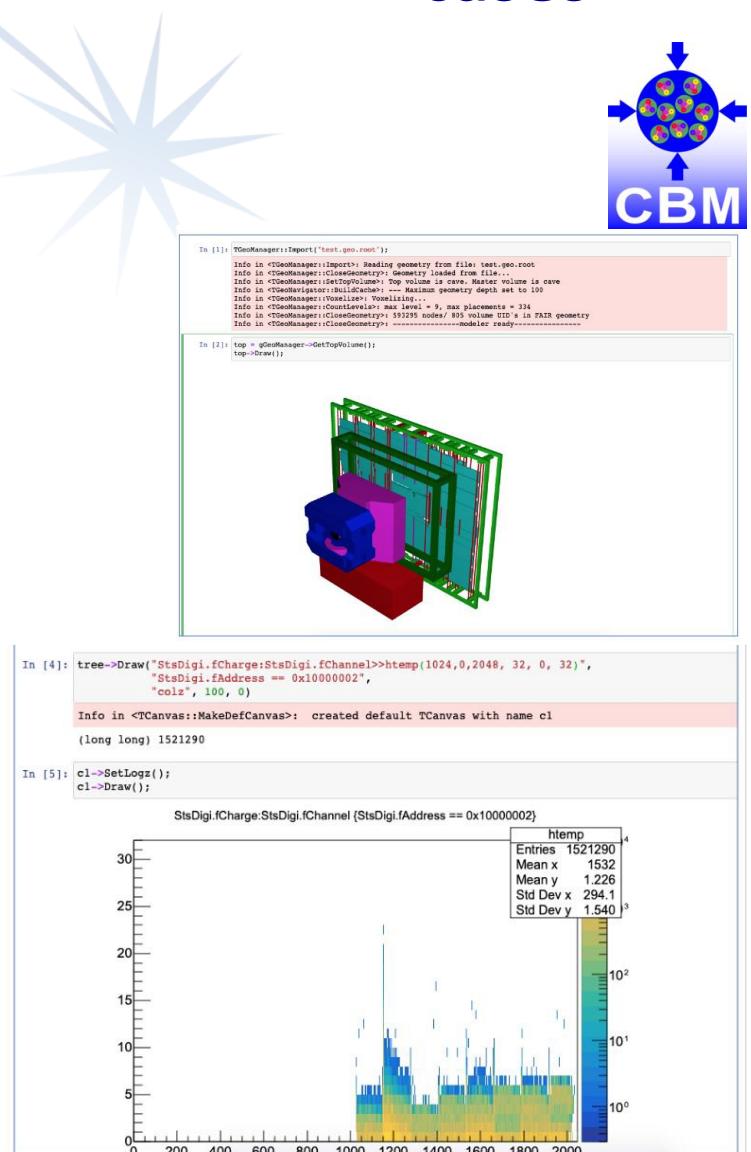


Sign in with GitHub

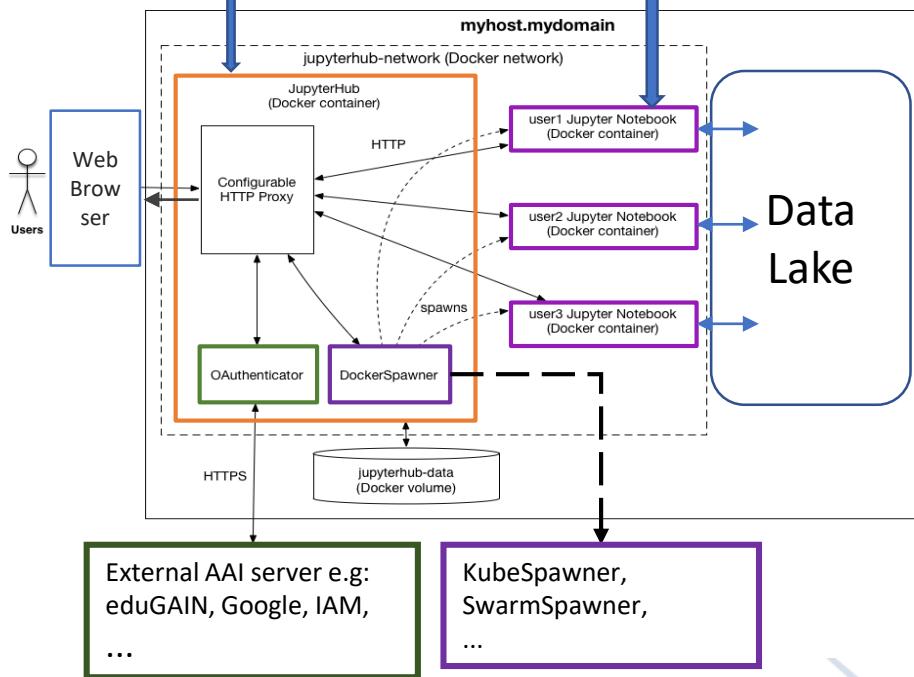
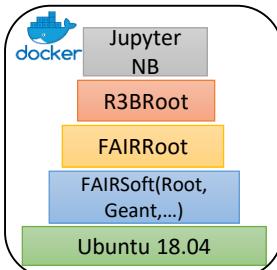
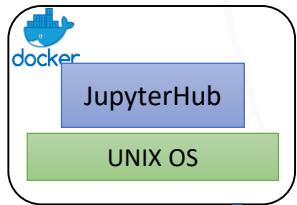


This JupyterHub service is provided as a use case for the project ESCAPE (European Science Cluster of Astronomy & Particle physics ESFRI research infrastructures). For more information please visit projectescape.eu.

Will be Integrated in a single Jupyterhub server!



Status of the use cases



Jupyter NB	✓	✓
Multi-user JupyterHub	✓	In prog
Data lake access (r/w)	In prog	✓
Interfaced with ESAP	Planned	Planned
Software license	Planned	In prog
Data server	In prog	2 x Xrootd +VOMS



Rucio related issues:

- lots of manual work
- Server side issues
- Problems with gfal
- Errors with naming schemes
- Connection issues when uploading/downloading files
- How and where to integrate Rucio in our software stack
- Lack of a comprehensive manual for RUCIO configuration
- AuthN in Rucio needs to be managed by the end user (even in the JupyterLab extension)

