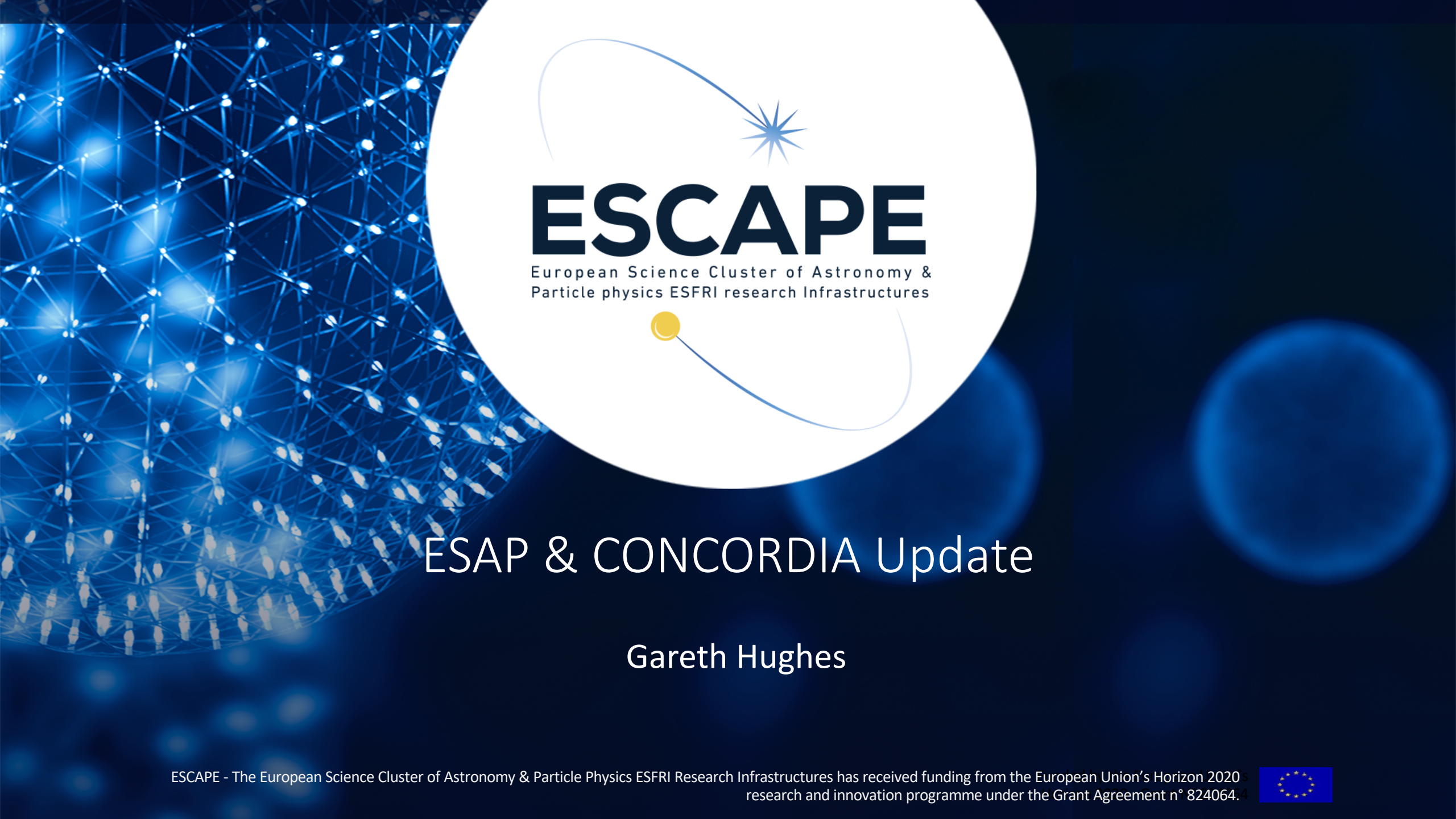

ESAP & CONCORDIA Update

Gareth Hughes

ESCAPE - The European Science Cluster of Astronomy & Particle Physics ESFRI Research Infrastructures has received funding from the European Union's Horizon 2020 research and innovation programme under the Grant Agreement n° 824064.

CTA Use Case for ESAP & CONCORDIA (link)

1. User navigates to the ESAP
   a. logs in
   b. x509 certificate found/read
   c. recognised as an ESCAPE & CTA/KM3NeT member
2. Navigate to CONCORDIA page
3. They are able to configure a container
   a. if the container exists it is selected
   b. if not it is created
4. The job is then submitted
   a. proxy-init
5. The job can be monitored
6. Results and logs can be accessed/downloaded

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Part 1

1. User navigates to the ESAP
   a. logs in
   b. x509 certificate found/read
   c. recognised as an ESCAPE & CTA/KM3NeT member
2. Navigate to CONCORDIA page

- Most of this is easy
- The problem is the x509 reading
- Should be read from IAM SCIM
  - So far no luck
  - Have spoken to Andrea Ceccanti
- Might have to edit the DIRAC init script?

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Part 2

3. They are able to configure a container
   a. if the container exists it is selected
   b. if not it is created

- Can we embed the CONCORDIA GUI?
  - Don’t want to double the work
- The dirac_production scripts can be easily added to the ESAP code
- Where would we store the images?
  - ESAP provides no storage or compute
- A simple version is easy to code (see later)

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Part 3

1. The job is then submitted
   a. proxy-init
2. The job can be monitored
3. Results and logs can be accessed/downloaded

- I can submit jobs
- Monitoring should be easy
  - but need to learn more React/Django
- Not sure where/how to download results
  - in the dream world we would use the datalake

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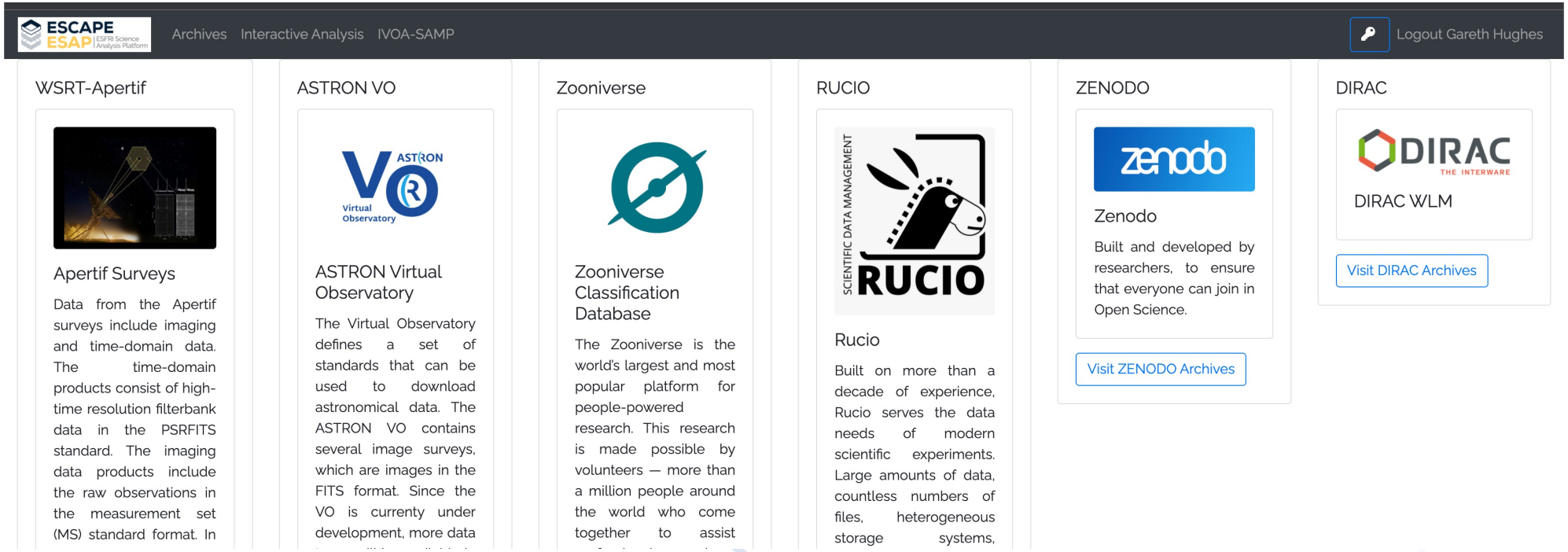
ESAP

- ESAP is python 3.9
- There we need to use DIRACOS2
- I have created a container that can run both ESAP backend and DIRAC
- DIRAC “archive” has been added to homepage, but this is not the final plan



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DIRAC THE INTERWARE DIRAC Archives Interactive Analysis IVOA-SAMP Logout Gareth Hughes

DIRAC Query

image

Jobs: 19

Showers: 1000

First Run #: 1

HE Interaction Models: SIBYLL

LE Interaction Models: GHEISHA

Array: CTA

Submit

esap-gui version 8 oct 2021 - 15:30


```
{'JobID': 18359684, 'OK': True, 'Value': 18359684, 'requireProxyUpload': False,
    'rpcStub': [['WorkloadManagement/JobManager', {'delegatedDN': None, 'delegatedGroup': None, 'timeout': 600,
    'skipCACheck': True, 'keepAliveLapse': 150}], 'submitJob', ['[ \n    Arguments = "jobDescription.xml -o LogLevel=INFO";\n
    CPUTime = 500;\n    Executable = "dirac-jobexec";\n    InputSandbox = \n        {\n            "/bin/hostname",\n
    "SB:ProductionSandboxSE|/SandBox/g/ghughes.cta_user/e9b/b34/e9bb34d0d7945deca7066e945b75fbdc.tar.bz2"\n};\n
    JobGroup = vo.cta.in2p3.fr;\n    JobName = API;\n    JobType = User;\n    LogLevel = INFO;\n    OutputSandbox = \n
    {\n            Script1_CodeOutput.log,\n            Script2_hostname.log,\n            Script3_CodeOutput.log,
    \n            std.err,\n            std.out\n        };\n    Priority = 1;\n    StdError = std.err;\n    StdOutput = std.out;\n]']]
}
```


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Work Plan & Questions

- IAM and getting the x509 cert (branch)
- How to proxy-init DIRAC
- Where to store the images for ESAP (maybe zenodo/here?)
- How to retrieve the data

- Singularity is installed on EGI “nodes” ?
- GUI source code?
- How did the GUI do the proxy-init?

- Note: Dave Morris IVOA Execution Planner - design outline

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