



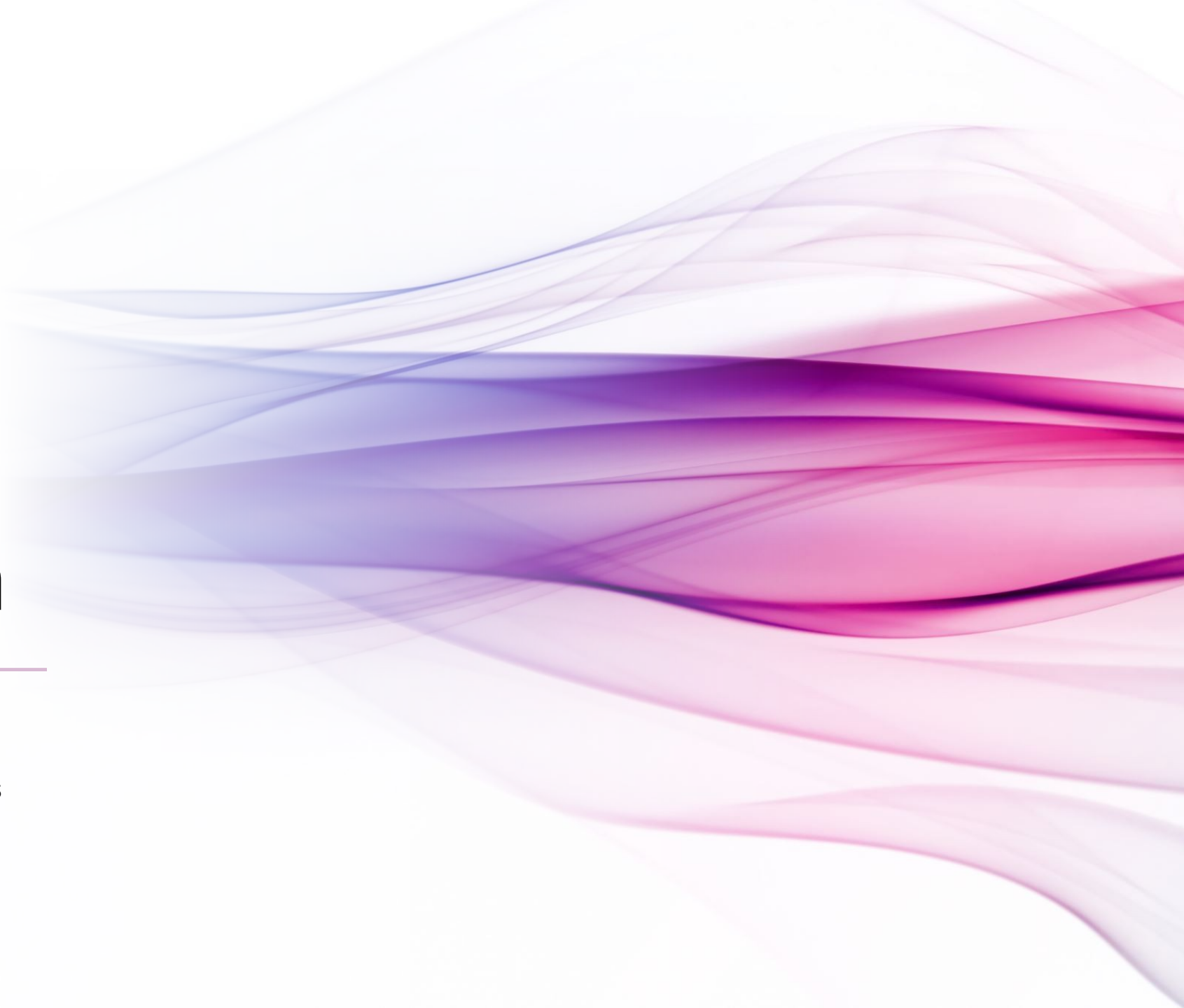
Simulation status & organization

B. Panico

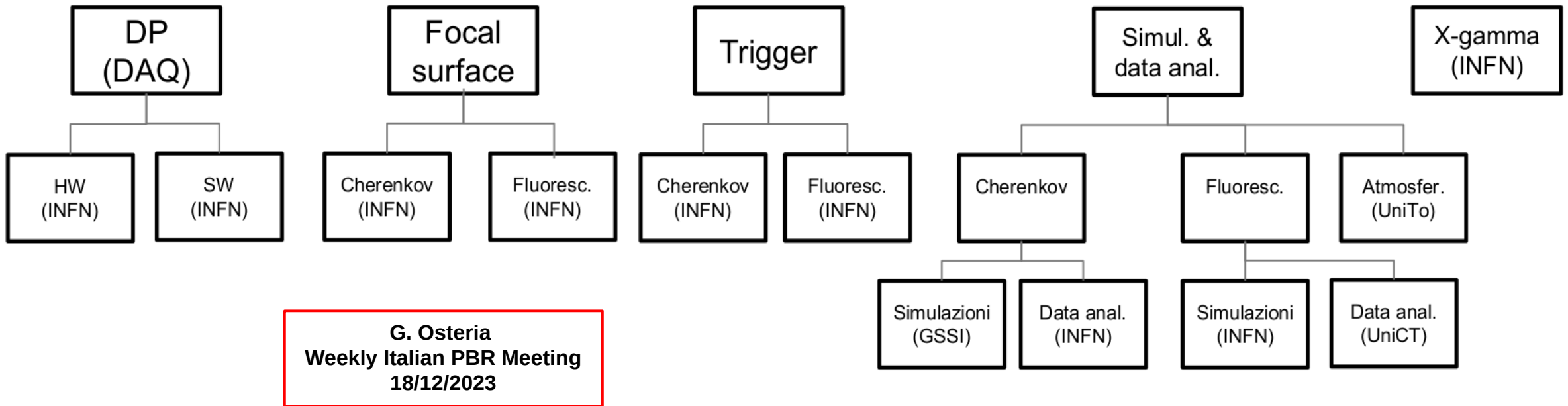
University of Naples && INFN Sec. Naples

PBR Italian Meeting 20/12/2023

University La Sapienza, Rome



PBR ITALIAN WBS (INFN – ASI AGREEMENT)



PBR Simulation Group

Weekly Simulation meeting

- Thursday 17:00 UTC
- Host: A. Cummings

Dedicated to the entire simulation
processes: radio, showers ...

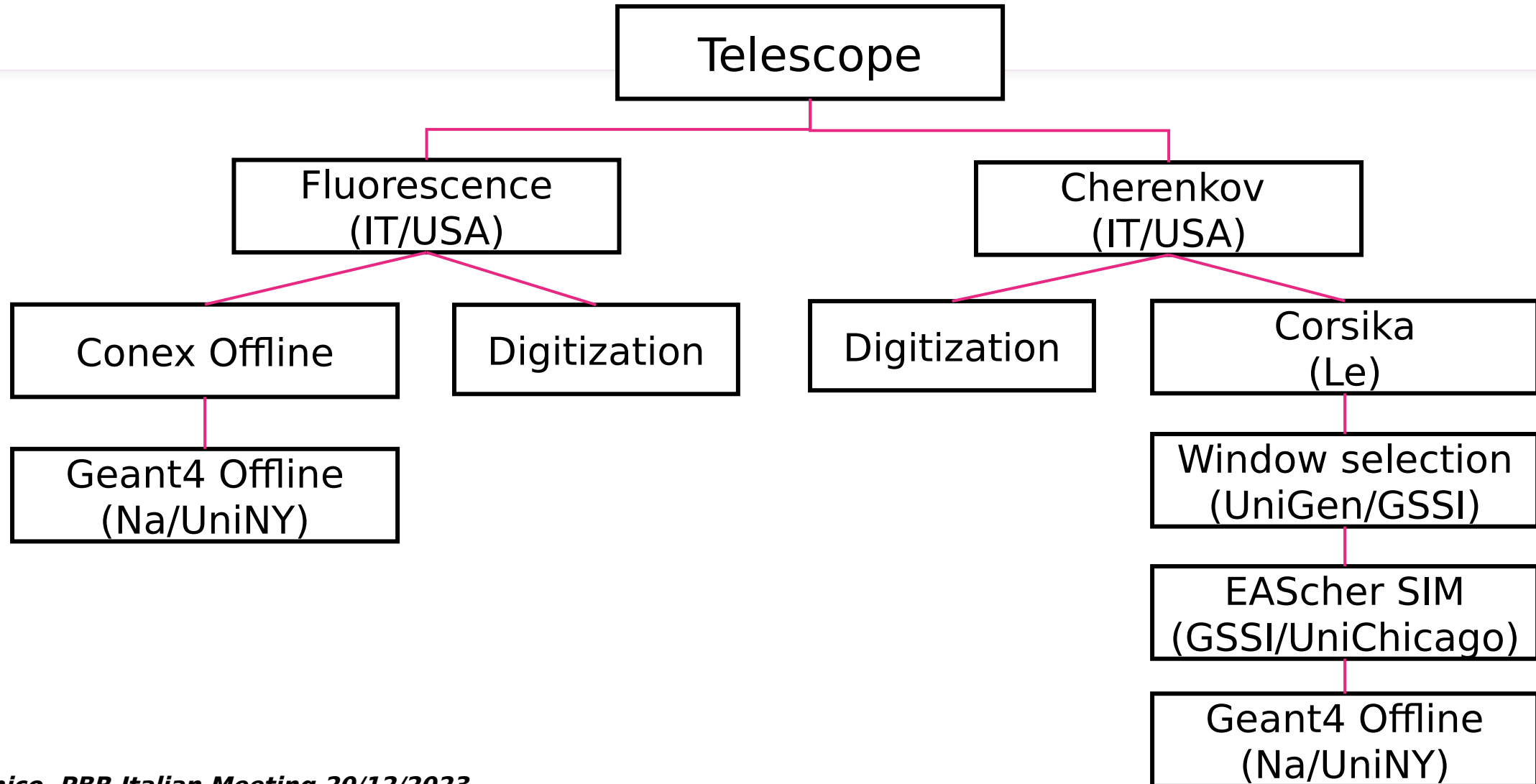
Weekly Offline meeting

- Thursday 18:00 UTC
- Host: J. Eser

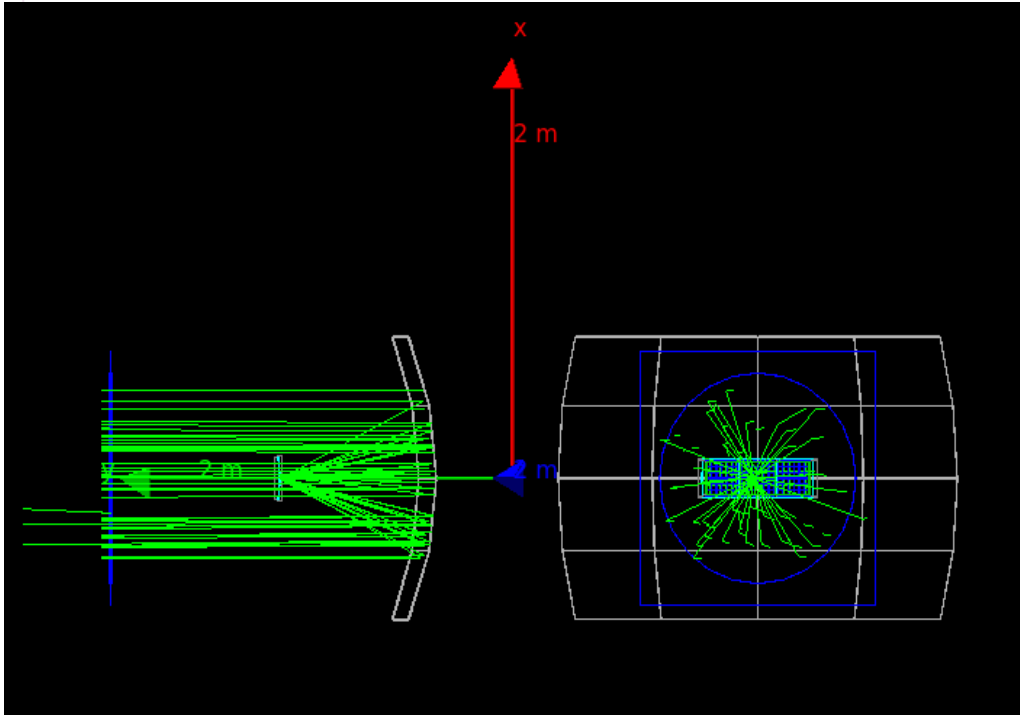
Dedicated to the offline development
code

PBR Sim Italian WBS

Dedicated meeting
12/12/2023



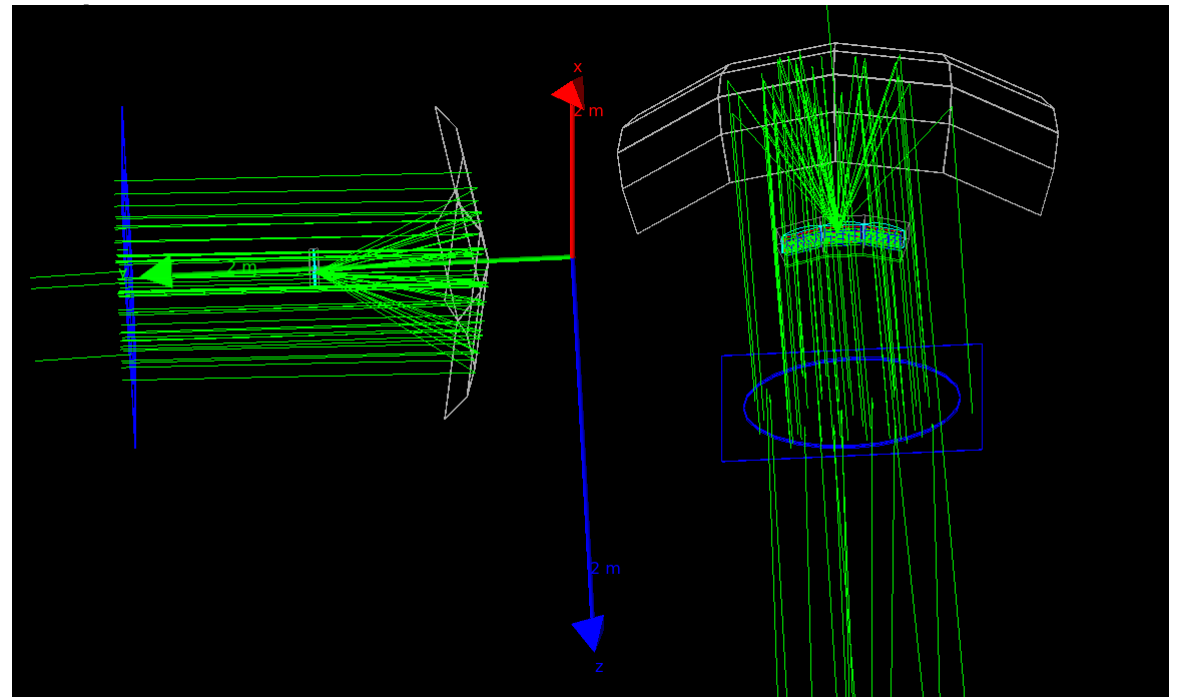
Geant4/Offline Telescope



User choices:

- Number of events
- Injection point coordinates
- Event angular coordinates

- Starting from the simulation for the EUSO-SPB2 detector
- Injecting photons on both Cherenkov and Fluorescence detectors
- Interacting renderer to have different



Geant4/Offline Telescope

New namespace **PBR Telescope**

- Completely separated from other telescopes

```
bpanico@bpanico-ThinkPad: ~/.../InjectParticles
```

Generating xml/PBRTelSimulatorJG.xml file...done
Generating xml/RawSimPlotterJG.xml file...done
(offline_env) bpanico@bpanico-ThinkPad:~/.../InjectParticles\$./JemEusoOffline -b bootstrap.xml
[INFO] Main/JemEusoOfflineMain.cc:137: main:

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JemEuso Offline Framework v1r2p0-practical_ishizaka
reference: Nucl. Instr. and Meth. A 580 (2007) 1485.
GIT revision number : v1.2.0-29-g706f911c

Geant4/Offline Telescope

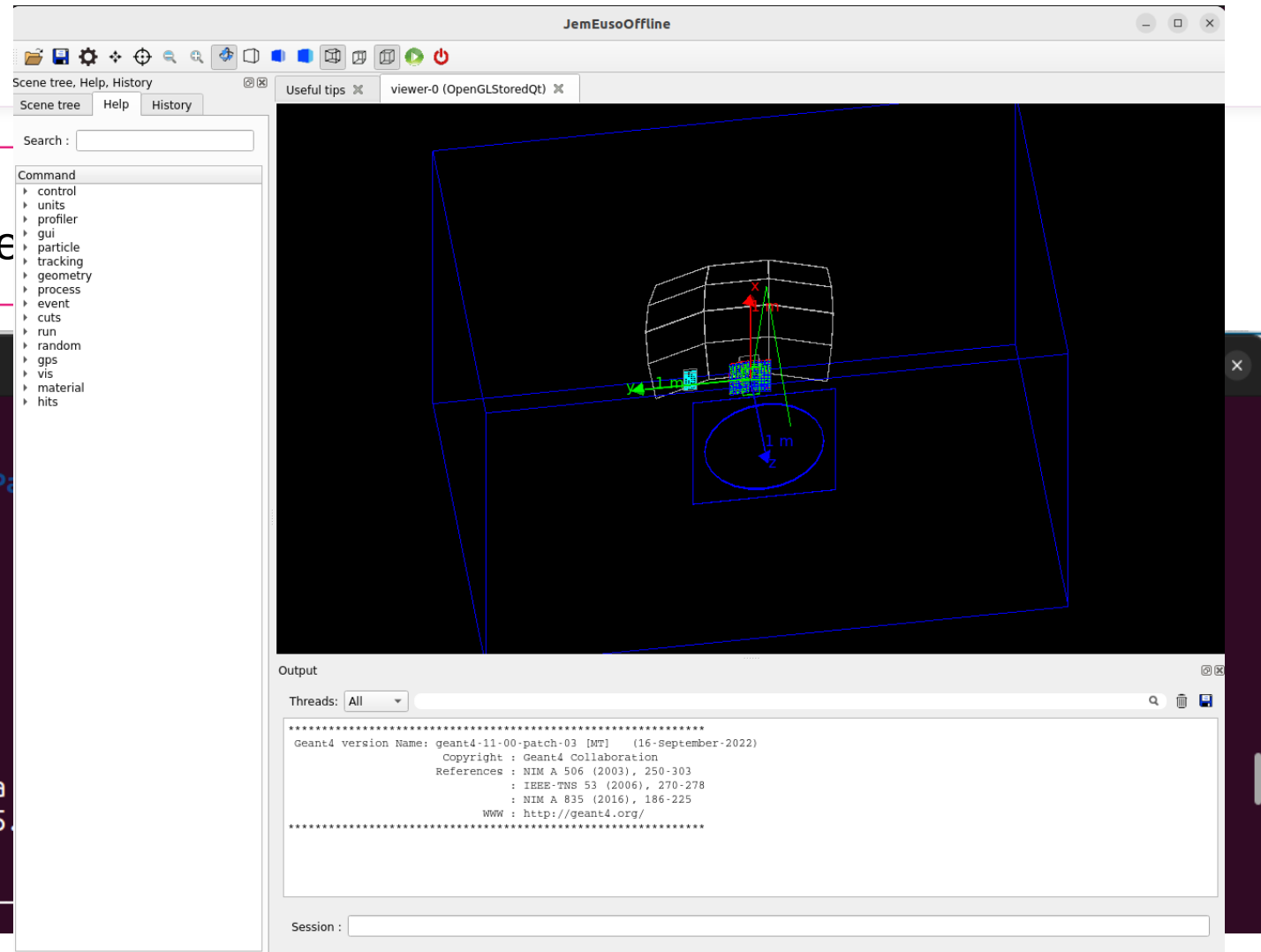
New namespace **PBR Telescope**

□ Completely separated from other telescope

```
Generating xml/PBRTelSimulatorJG.xml file...done
Generating xml/RawSimPlotterJG.xml file...done
(offline_env) bpanico@bpanico-ThinkPad:~/.../InjectPa
[INFO] Main/JemEusoOfflineMain.cc:137: main:

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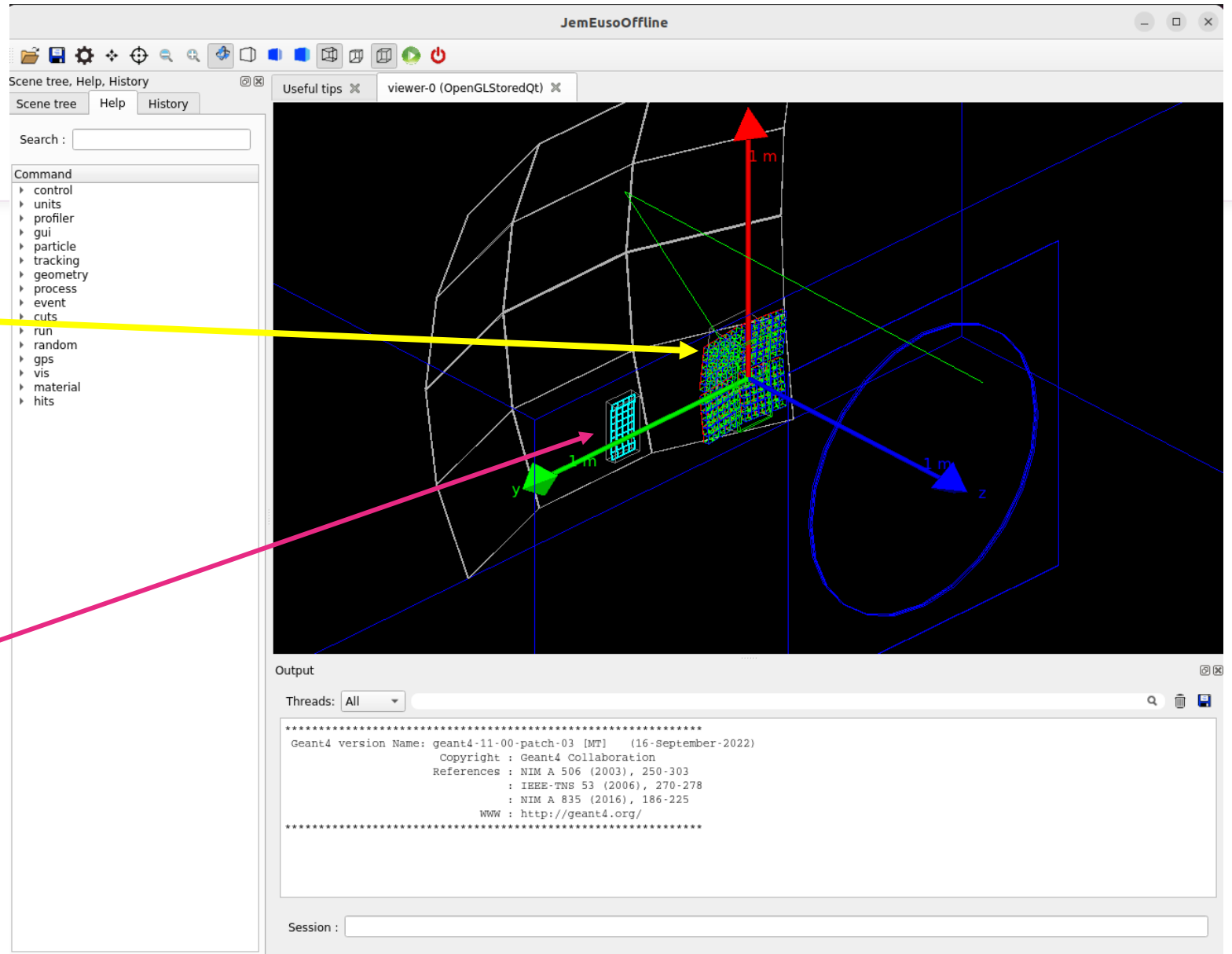
JemEuso Offline Framework v1r2p0-practical_ishizaka
reference: Nucl. Instr. and Meth. A 580 (2007) 1485.
GIT revision number : v1.2.0-29-g706f911c
```



Geant4/Offline Telescope

Fluorescence camera

Cherenkov camera



PBR Simulation Links

Wiki:

<https://gitlab.com/groups/jem-euso/pbr/-/wikis/home>

Mailing List:

<https://lists.uchicago.edu/web/info/pbr>

Zoom:

<https://uchicago.zoom.us/j/95321324514?pwd=Ui9Oc3ZBbnBuMm0vVTRGNkZIMGxRUT09>

GDrive:

<https://drive.google.com/drive/folders/1NPq9fv1WZr-MZvjlbN7Ob1keRakEIOtE?usp=sharing>

Slack:

https://join.slack.com/t/poemmaballoon-a8x1294/shared_invite/zt-22if3tnk7-feHuBLycUbmaM0tZR8YJ1A

PBR Gitlab

Wiki:

<https://gitlab.com/groups/jem-euso/pbr/-/wikis/home>

The screenshot shows the GitLab web interface for the 'offline' project. The left sidebar contains navigation links: Project, Pinned, Issues (65), Merge requests (7), Manage, Plan, Code, Build, Secure, Deploy, Operate, Monitor, Analyze, and Help. The main content area displays the project name 'offline' with a lock icon, a notification for a merge branch '131-boot' into 'master' by Tom Paul, and a table of files and their last commit details.

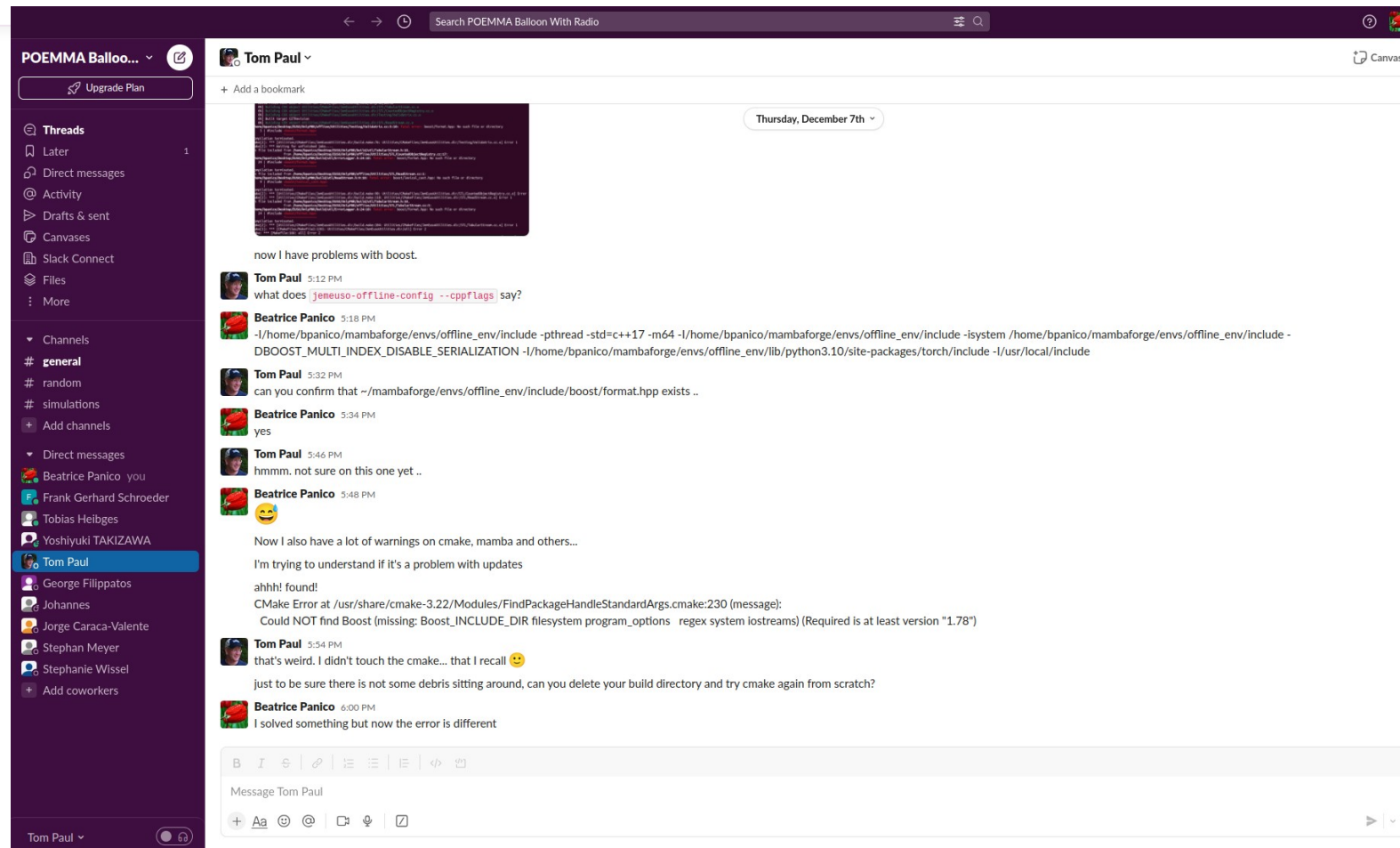
Name	Last commit	Last update
.gitfilter	Update keyword.smudge	4 years ago
CMakeModules	Add cmake formatters and linting	3 months ago
Database	Add cmake formatters and linting	3 months ago
Documentation	always run examples + fix PBR ...	2 weeks ago
EventIO	Resolve "doxygen catgorizatio...	1 month ago
Framework	adds capability to override mult...	2 weeks ago
Main	Add cmake formatters and linting	3 months ago
Modules	PBR step 1	2 weeks ago
OfflineViewer	Add cmake formatters and linting	3 months ago
Python	Add cmake formatters and linting	3 months ago
RegressionTests	adds capability to override mult...	2 weeks ago

On the right side of the interface, there are statistics: 2,720 Commits, 64 Branches, 9 Tags, and 3 Releases. Below these are links to the README, BSD 3-Clause "New" or "Revised" License, CHANGELOG, CI/CD configuration, and Wiki.

PBR Gitlab

Slack:

https://join.slack.com/t/poemmaballoon-a8x1294/shared_invite/zt-22if3tnk7-feHuBLycUbmaM0tZR8YJ1A



Conclusions

- ✓ Simulation groups is working
- ✓ Weekly meeting
- ✓ Tasks in definition
- ✓ WBS on going
- ✓ To join ☐ mail