

ASP2022 HTC Wrap-up

The African School of Fundamental Physics 2022

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Some Useful Resources

- HTC tutorial page will be up for the time being
 - If you want to practice, we'd suggest you taking maximum advantage right now
 - https://osg-htc.org/dosar/ASP2022/ASP2022_Materials/
- You could apply for a real HTCondor account for a long-term grid access at
 - <https://www.osgconnect.net>

Computing Infrastructures

- Local Laptop/Desktop – Short jobs w/ small data
- Local Cluster – Larger jobs and larger data but subject to availability
- HPC – Prime performance with parallelized code
- HTC – Sustained computing over a long period for serialized workflows
- Cloud – Need deeper permission on an OS and/or have deeper pockets

Some Examples of Academic CIs Worldwide

- **HTC**

- EGI (formally European Grid Initiative)
- OSG (Open Science Grid)
- ASGI (Asia Pacific Grid Initiative)
- NorduGrid
- Earth System Grid (ESG)
- Many other regional and national infrastructures

Some Examples of Academic CIs Worldwide

- **HPC**

- ACCESS (Advanced Cyberinfrastructure Coordination Ecosystem: Services & Support)
- PRACE (Partnership for Advanced Computing in Europe)
- Compute Canada
- Greek Research and Technology Network (GRNET)
- Centre for HPC (Cape Town, South Africa)
- Many other national infrastructures

Some Examples of Academic CIs Worldwide

- **Cloud**

- EGI Federated Cloud
- NeCTaR – National eResearch Collaboration Tools and Resources
- Jetstream (Part of ACCESS)
- SwissACC (Swiss Academic Computing Cloud)
- Many other national cloud infrastructures

Wrapping up the grid session

- You have exercised several job submissions
- And made changes to your jobs to allow self controlled job submissions
- Seeing your jobs on condor_q was elating, wasn't it?
- So far you have just highlighted and pasted the examples listed in the tutorial page
- But you can certainly make changes to fit your own purposes!
- The tutorial taught you what to do to use the grid system that sits behind the scenes
- Need to take this skill one step further
- This is exactly what we do for a profound discovery!

Further Pointers

- The ASP grid school tutorial page is always the place to return to refresh your memory
- Most of you must have completed a lot of the exercises in the ASP grid school page
- The next step is to take your simple jobs to more sophisticated research project jobs through the OSG connect
- Once you complete the above, you can then take on making the change to the behavior of the standard universe looking at the condor manual
- Important thing is not let it slide but keeping it up!

What a once-in-a-life time experience!!

- It has been amazing couple of weeks!!
- You all have learned
 - High Energy Physics in general
 - Standard Model and underlying physics
 - Higgs Physics
 - Super-symmetry
 - Use of Monte Carlo simulations
 - Experiments and data analysis
 - Computing grid and its use for your science
- You have changed dramatically in the short period of time!
- You have made good friends from all over Africa
- You will be the ones advancing science in this continent
- Keep not only the knowledge but also the spirit of ASP!
- Look for other opportunities to work closely!



Totally impressed with y'all!!

Nice to have met you all!

Have a safe trip back home!

See you soon somewhere!

Questions on HTC?

- Questions? Comments?

– Feel free to ask us questions now or later:

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08/12/22

Gird Computing Close Out
Jaehoon Yu



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