ASP2022 HTC Wrap-up

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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 (**A**dvanced **C**yberinfrastructure **C**oordination **E**cosystem: **S**ervices & **S**upport)
  - 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 Cls 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 o ely!

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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