

# Virgo Compting needs for 2015

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# Current status

- In 2014 there was no scientific data taking.
- The main computing activity was the offline analysis of old and simulated data (mock data challenges). Job efficiencies in the CCs are almost optimal (over 90% in both CCs.)
- Good progress toward better usage of Grid resources using native grid submission and Pegasus workflow planner.
- GPU developments are ongoing

# Storage needs for 2015

- In 2015 Virgo will not take scientific data, only short engineering runs are planned.
- For storing data of engineering runs the Cascina circular buffer will be sufficient.
- LIGO detectors are expected to have 3 month of data taking each, which results approximately 34 TB data (40 TB with safety margin) in total for the two detector. it has to be stored at CNAF and Lyon.



# Computing needs for 2015

- Ramp-up in computing need has just started.
- Mock data challenges, pipeline developments, LIGO data analysis (O1) will require more computing power than last years.
- This is just the beginning, we have to be prepared for the period 2016-2018 when these numbers will blow up.
- Details are in the document, the overall increase in terms of CPU cores is around 2000.
- We would like to make use of 1000 core on distributed Grid resources and another 1000 core is needed in CNAF and Lyon (together). As such, we would like
  - **600 core (6 kHS06 mean power) in addition in CNAF**
  - **and 300 core (1000 kHS06.day) in total at Lyon**

# GPUs

- 2015 will be a very strict year for computing, because the above estimate will work only if some of the analysis groups will be able to port their pipelines to GPUs by Q3 2015.
- For this reason we will set up a small GPU cluster for development purpose and we will need GPUs in the second half of the year in the CCs
- Type and amount to be decided later ( current estimates: for development cluster 4, for production c.c 30).