

# GR4 (TASP) report

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# Our setup

## Resources:

- 48 CPU (bought 2014)
- 2 permanent volumes (20GB - 1TB)

## Configuration:

- using (now)
  - 5x m1.large (6 cores, 16GB RAM)
  - 5x m1.medium (3 cores, 8GB RAM)
- **static** setup

## Usage:

- parallel computation (MPI)
- launching jobs from shell after SSH on each machine
- Not using HTCondor (*yet*)

Fermi maps,  
cosmological models,  
...

No queue system,  
manual selection of nodes

We don't have statistics on:  
running jobs, cpu load, ...

## (Incomplete) list of papers for which we used the cloud



H.-S. Zechlin, A. Cuoco, F. Donato, N. Fornengo, M. Regis.

“Statistical Measurement of the Gamma-ray Source-count Distribution as a Function of Energy”. (2016).

[arXiv: 1605.04256 \[astro-ph.HE\]](#).



R. Murgia, S. Gariazzo, N. Fornengo.

“Constraints on the Coupling between Dark Energy and Dark Matter from CMB data”.

*JCAP* 1604 (2016), p. 014.

[arXiv: 1602.01765 \[astro-ph.CO\]](#).



H.-S. Zechlin, A. Cuoco, F. Donato, N. Fornengo, A. Vittino.

“Unveiling the Gamma-ray Source Count Distribution below the Fermi Detection Limit with Photon Statistics”. (2015).

[arXiv: 1512.07190 \[astro-ph.HE\]](#).



S. Gariazzo, C. Giunti, M. Laveder.

“Light Sterile Neutrinos and Inflationary Freedom”.

*JCAP* 1504 (2015), p. 023.

[arXiv: 1412.7405 \[astro-ph.CO\]](#).



“...and many more.” (2014–2015).

# Problems/Suggestions/Questions

VNC

Fundamental to understand what's going on if the machine is not working, not accessible from one-master (Hannes): unauthorized IP?

IP assignment

Related to euca-\* commands.  
New VMs (sometimes) are created with the IP of the last destroyed VM, instead of with the first free one.

Initial OS and Software setup

Initialize a machine takes time because of the software update... Is it possible to "update" the image from which the machine is created?

Backups

Is there a backup system for the permanent disks?  
(See the recent problems with the web pages)

HTCondor

Help for installing HTCondor and making the setup dynamic (and release unneeded VMs)? **Possibility to have more cores** if the cloud is not fully used?