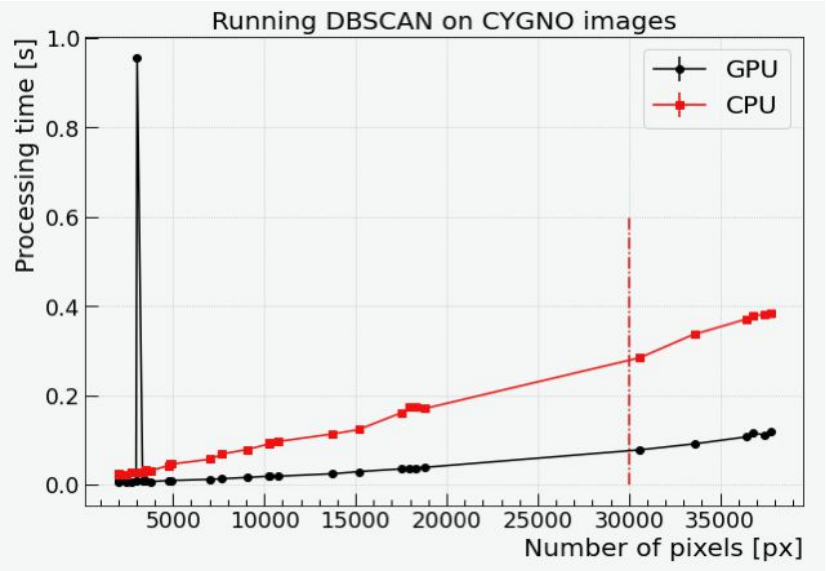
CygnoDAQ report

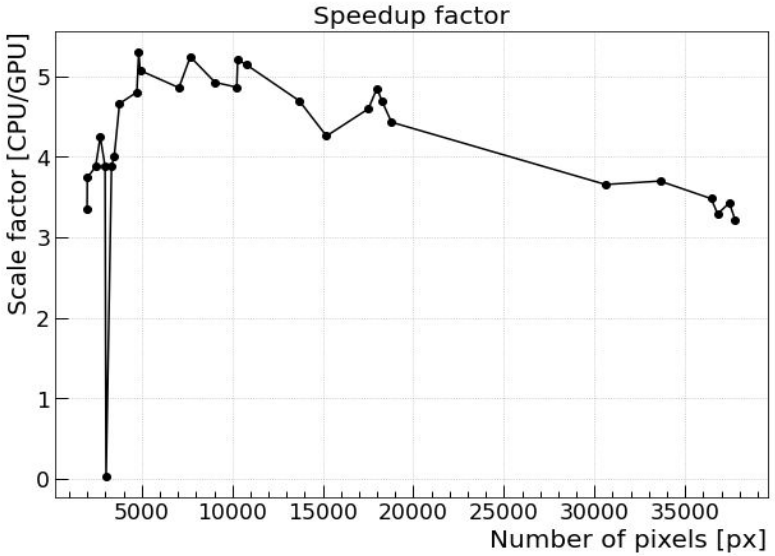
Oct. 14th, 2020

RAPIDS and Docker

- Docker is apparently the right way to setup a software container with all the necessary libraries and configurations. This container can then be imported on different machines and executed with no problems
- We installed docker on GAP01, and created a container with RAPIDS and all the libraries needed to run DBSCAN
- Amaro provided us the notebook for a preliminary test
- Next step:
  - have a docker container available to everyone
  - Develop the benchmark of DBSCAN on CPU and GPU

GAP01 results





- Slightly better ratio GPU/CPU on GAP01 than google
- The power consumption of the GPU was around 10%, thus it was not well exploited

Servers

Server	Manufacturer	CPU	RAM	HD	Power supply	GPU	year	price server
GAP01	supermicro	2x xeon 6-core E5-2620 2.0 Ghz	8x DDR-1600 ECC 8 GB	2x 4 TB + 500 GB SATA 7200 rpm	1620 W	NVIDIA P100 12 GB	2013	5000
GAP03	supremicro	2x xeon 16-core 4216 2.1Ghz	8x DDR-2933 ECC 32 GB	2x 8 TB SATA 7200 rpm + 1 TB M.2	1200 W	2x NVUDIA TITAN RTX 24 GB	2020	7200

Some quotes are available here:
https://drive.google.com/drive/folders/12euN3rri1mWb_ha28W24dCo5ndemphSS?usp=sharing