

Off-line analysis pipelines

Extracts from the Computing Plan
(page 17-26)

Science data analysis workflows

Off-line pipelines

– CBC

- Standard aHope detection pipeline (*Condor / Pegasus / Grid*), - *Chris, John*
- *LALInference, TIGER* (*Condor / Pegasus / Grid*) - *Chris, John*
- *GWTools* (*Condor / Pegasus / Grid*) - *Gergely*

– Burst

- Coherent wave burst (?) - *Vedovato, Drago, Lazzaro*
- *STAMP* (*Condor / ?*) - *Franco, Bizouard, Hello*
- *X-pipeline* (*Condor*) - *Was, Leroy*

– CW

- All-sky search for unknown neutron star
 - Frequency Hough (*Condor / Grid*) - *Pia, Cristiano, Alberto, Frasca, D'Antonio*
 - Polgraw AllSky (?) - *Michael, Andrzej*
- Targeted search for known neutron stars
 - Rome targeted (*Condor / Grid*) *Pia, Cristiano, Alberto, Frasca, D'Antonio*
 - Polgraw targeted (?) - *Michael, Andrzej*
- Direct searches
 - Pisa pipeline *Cella, Torre, Ferrante*
 - Polynomial pipeline - *Bulten, Jonker*

– Stochastic

- Isotropic analysis (?) - *Tanja*
- The spherical harmonics analysis (?) - *Tanja*

Requirements

- Only the pipelines are considered where there is active Virgo participation / development.
- It is time consuming to maintain two version of any pipeline...
- CBC, Pegasus / aHope based pipelines
 - There is no point introducing anything different than Condor / Pegasus, otherwise nobody will use it.
 - Data locator service with *ligo_data_find* compatible output (staging included if necessary)
- CW
 - Grid logical file catalog for pre-uploaded analysis file
 - Possible Pegasus / Condor job submission interface, but works also with native Grid tools
- Burst ?
- Stochastic ?