News from the Joint Data Analysis Council (DAC).

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LIGO-G070333-00-Z

Who's the DAC ?

- Chairs of search groups in Virgo and LSC
- Chairs of Review Comm.s
- The Virgo and LSC data analysis coordinators

mailing list and meetings are open to anyone in Virgo and LSC

http://www.lsc-group.phys.uwm.edu/ligovirgo/dac/
https://workarea.ego-gw.it/ego2/lsc-virgo/data-analysis-council/

DAC activities since March

- Input to joint run planning committee
- White paper
- Data transfer
- Hardware injections

Data Analysis (sections of) White Paper

- Covers plans and priorities for:
  - data analysis
  - DC
  - Software infrastructure
  - Computing

- Multi-authors in DAC CVS

- Must have complete draft by mid June

Hardware injections in S5

- In LIGO will continue as usual + blind injection challenge
- In Virgo there are plans for burst and inspiral injections: 5 minutes/ ~ 10 hrs
  - Non synchronouos
  - Same physical parameters
  - ==> with time shift corrections possible to perform coincidence and coherent analyses.

Data transfers

(not really done by DAC!)

What ?

- WSR1 (bursts), WSR8 (inspirals), SFT (3 days of S5) (pulsars)
- VSR1: Frame RDS 3 (h(t)+ min data quality)

How ?

- No general framework yet, VSR1 ad-hoc solution
  - Virgo -> LSC
    - bbftp (multi-thread FTP) + perl to feed Caltech.
    - LDR to distribute over LSC. Both working!
  - LSC -> Virgo
    - same arch feeding Lyon. Not working yet
    - replica to Bologna.

Run scheduling

- Remainder of S5 maintainance times
  - Not possible to change LIGO: Tue 8:00-12:00 PT
  - Virgo maint. not synchronous: Tue 11:00-15:00 CET
- Post S5 down time
  - GEO : up
  - H2 : ?
  - L1, H1, V : ?? ?? ??

Post S5 Run scheduling

- Somewhat heated discussion
  - Upgrade L1, H1, V as fast as possible
  - Accept delays to ensure better astrowatch coverage
  - The numbers now, for supernova ZM wave forms (energy peak at 300Hz) for 90% detection efficiency reach are:
    - 7kpc (optimal orient.)/ 3kpc for H2
    - 900pc / 400 pc for GEO
  - What analyses must be done during astrowatch ?
    - Only triggered, if only GEO and H2 are up.

Post S5 Run scheduling

- Need to clarify:
  - How reach translates in expected rates (how many sources in given volume) including other sources, most notably BNS
  - What uncertainties factor in due to source and signal models
  - Define figure of merit to compare different situations, e.g. Expected rate of detectable signals * uptime integrated over next 2 years, next 4 years...