
UPPER LIMIT GROUP LEADERS' MEETING

DATE: 10 January 2001
TO: S. Anderson, B. Barish, K. Blackburn, P. Brady, S. Finn, P. Fritschel, G. Gonzalez, A. Lazzarini, J. Romano, P. Saulson, P. Shawhan, R. Weiss, A. Wiseman, M. Zucker, J. Zweizig
FROM: J. Romano
RE: Minutes for 9 January 2001 Teleconference

In attendance:

- @CIT: S. Anderson, K. Blackburn, A. Lazzarini, P. Shawhan
 - @LHO: J. Zweizig
 - @MIT P. Fritschel, R. Weiss, M. Zucker
 - @SU: P. Saulson
 - @PSU: G. Gonzalez, S. Finn
 - @UTB: J. Romano
 - @UWM: P. Brady, A. Wiseman
1. Alan: Began with a list of questions: To what extent should LDAS be used in the upper limit analyses? What LDAS requirements are common among the groups? How can we help LDAS development and not simply push it?
 2. Joe: Summarized part of the minutes from the last upper limit group leaders' meeting (at the GWDAAW). Stressed the importance of doing the upper limit analysis within LDAS. Raised a question from the previous meeting about validation of software. Do we do formal MDCs prior to the upper limit analyses?
 3. Rai: We can always do a "continuity check" to see if the data analysis pipeline is broken—e.g., shake the test masses at each site and see if we can identify that "signal" in the data.
 4. Peter Shawhan: A continuity check is different from an MDC. An MDC tests LDAS software to extremes; pushes the envelope on performance, memory usage, etc.
 5. Sam: When should we perform the analyses? Assuming the engineering run will be held in June, do we require that all software functionality be in place by then? Or should the analyses be postponed to November? In any event, one will most likely re-do the analyses many times, off-line. We will need a stable version of LDAS during run, but the analyses could be done subsequently, with LDAS code development proceeding simultaneously.
 6. Patrick: Inspiral group is proposing a scaled down on-line analysis. They assume the DMT can write triggers, that data can pass through the datacondAPI, wrapperAPI, and be written to metadata database. They will need average power spectra, response functions, and information about the detector state.

7. Rai: Detector group will provide power spectra, response function, and detector state flag (1 if good data).
8. Gaby: Re-emphasized that it is a high-priority item for them to run the search code live. They will de-scope the search to a minimal number of templates. Push data characterization off-line.
9. Kent: The managerAPI should be ready by June. It's in fairly good shape now.
10. Peter Shawhan: But still need something upstream to submit different jobs to the manager.
11. Albert: Need to add more functionality to the dataconding conditioning API. This is currently a major problem. Desperately need volunteers. Also need data mining tools for visualization of the results of queries on the metadata data base.
12. P. Shawhan: Mentioned the possibility of having Matlab and C interfaces to the metadata database.
13. Sam: Doesn't think the datacondAPI will be ready; at least not with current manpower. Stressed the importance of being able to clean the data before performing the analyses—e.g., we need to be able to remove line features (power lines, violin modes), etc.
14. Peter Saulson: Is the purpose of the analyses to do science or develop LDAS? What sort of sensitivity does one expect to have during the engineering run?
15. Rai: Optimistic estimate of strain sensitivity: $10^{-20}/\text{rHz}$; currently $10^{-16}/\text{rHz}$.
16. Stuart: For CW analysis, they will want the data as cleaned as possible.
17. Mike: No substantial on-line component for their analysis. They want to be able to veto periodic instrumental artifacts. Regress with auxiliary channels off-line.
18. Sam: The burst group has not set any requirements on how much of their analysis they plan to do on-line. They want to filter data with templates for black hole ringdown. Also want to use time-frequency tools. Look for coincidences between the two sites off-line.
19. John: It would be nice to process a few templates on-line for diagnostic purposes.
20. Patrick: Wanted to know where the off-line analyses will be done.
21. Stuart: The HPSS archive will not be available by June. But there is sufficient storage for up to one month of engineering data on spinning media. They can bring all the data together at one site, if necessary.
22. Kent: Stable versions of LDAS will be running at the sites. New releases of LDAS will carry-over previous functionality.
23. Albert: Compute power at each site will consist of small (temporary) Beowulf clusters: roughly 18-20 nodes, with GHz clock speeds.
24. Alan: Suggested that we all put together a data flow diagram, to get a better idea of what resources are required from LDAS. These diagrams should be circulated to the group before the next teleconference.
25. Next meeting: Tuesday Jan 23rd, 2001 at 12:30pm Pacific.