Bringing the Veto Saga to an End

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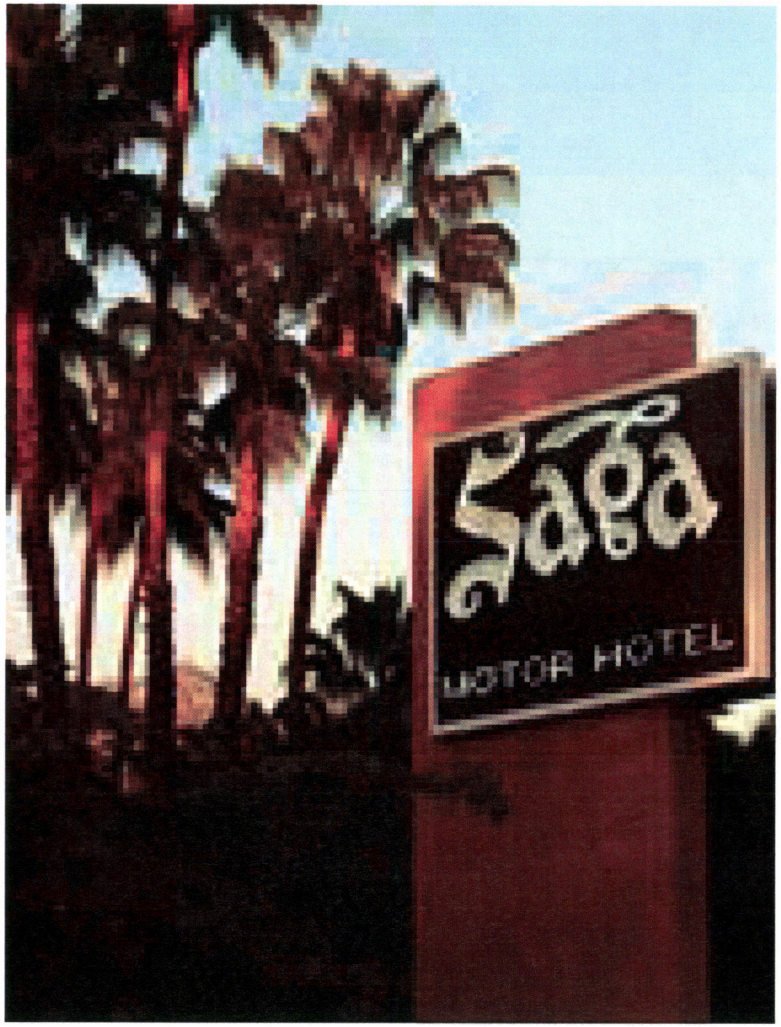
From Yesterday: Logical Flow of Analysis & Paper

- **Describe analysis**
- **Describe "full" and "clean" data sets**
  - "Full" has DQ2, debugged smoking-gun PEM vetoes
  - "Clean" also has DQ3, additional PEM vetoes, safe AUX vetoes
- **Look at time-shifted triggers in "full" data set**
  - Choose thresholds for selection of candidates
- **Open zero-lag box on "full" data set**
- **If any event(s) in the "full" data set:**
  - Is this a compelling candidate?
  - Consider the "clean" set's veto conditions, DQ4, other DQ conditions which weren't flagged for technical reasons
- **Calculate UL on the "clean" data set**

Late Last Night…



Vetoes for "Full" Data Set
(used for detection search)

- **Category 2 Data Quality cuts**

- **LHO magnetometers & voltage monitors**
  - From a list of many channels
  - "Vote", requiring 3 or more with threshold 200, window 100 ms
- **LLO magnetometers**
  - Nine channels: EX_MAG*, EY_MAG*, LVEA_MAG*
  - "Vote", requiring 3 or more with threshold 200, window 100 ms
- **LHO accelerometers**
  - Many channels, all in LVEA
  - "Vote", requiring 3 or more with threshold 100, window 200 ms

Vetoes for "Clean" Data Set
(used for upper limit calculation)

- **Category 3 Data Quality cuts**

- **Lindy's list of PEM veto conditions, EXCEPT exclude:**
  - All LLO accelerometers (not fully understood)
  - h0_bsc9mic
  - h0_iot7mic (problematic during the run)
  - l0_radiolvea

  N.B. Include magnetometer/accelerometer channels used to define "full" data set, but now considered & tuned individually
- **Lindy's list of interferometric veto conditions, EXCEPT exclude:**
  - asac
- **Still use l1_etmycal and l1_etmxexcdaq, though puzzling?**

Path to Actually Finishing

- **We can declare the analysis fixed and open the box before actually producing the final list of veto time intervals, as long as we have agreed on them**
  - Can spot-check any zero-lag candidates found
- **Voting scheme still needs to be implemented**
  - Very little change in livetime
- **Revised lists are now being regenerated by Lindy at** http://ldas-jobs.ligo.caltech.edu/~lindy/s5_veto/s5-1yr/vetolist-clean **by using grep to remove channels**
- **Lindy proposes to re-run the hierarchical optimization after removing the channels mentioned on the previous page**