

# INTRODUCTION TO INFRASTRUCTURE

Workshop on Computing for Neutrino Experiments

# Why a workshop

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- 8 neutrino experiments exist or are coming soon...
  - MINOS
  - MiniBoone
  - SciBoone
  - MINERvA
  - NOvA
  - Argoneut
  - MicroBoone
  - DUSEL

And that no-neutrino experiment  $\mu \rightarrow e$

# “BITS is BITS” – my brother-in-law Dave

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- Each neutrino experiment has  $\leq 100$  users
- These are neutrino experiments
  - ▣ Lowish energy  $\rightarrow$  simple events
  - ▣ Efficient triggers  $\leftarrow$  not 99.9% junk like colliders
  - ▣ Event rates are 0.2 Hz, not 100 Hz...
  - ▣ Reasonably low event sizes
- Many similarities
- But some differences....
  - ▣ Argon vs Scintillator...

# How will we look to the people we work with?

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An impressive program?



2009 Superbowl

Many gnats....



2007 AL Playoffs

# First step

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- Lee Lueking appointed Neutrino Liaison for CD
- Johns Hopkins Thesis: **“a Long Baseline Search for Neutrino Flavor Oscillations”**
- E790, D0, CMS and now back home with the neutrino.



# Purpose of the Infrastructure Session

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- Experiments will give talks about their infrastructure – existing and needed
- Common template has been provided so that some comparisons can be made..
- Then CD people will discuss the services that are available.
- Try to identify areas where we can invent the wheel once (or twice) and reuse it.
- Lee will sum up with information on how to set up a Memorandum of Understanding...

# Should be interesting

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- ❑ MINERvA - bottoms up calculation of computing needs yields CPU estimate for user analysis
- ❑ MINOS - real experience indicates that MINERvA number is way way too low.
- ❑ Conclusion:
  - ❑ Take estimates with a truckload of salt.

