



Preparing a LOI

- I met with Stephen Parke on March 26th and he encouraged us to submit a LOI for consideration at the June PAC
 - Must submit to PAC by May 18th
 - http://www.fnal.gov/directorate/program_planning/phys_adv_com/PACdates.html
- Need not be a “detailed” proposal, but should
 - Be detailed enough to judge scientific merit, ie, *“is there is enough for the PAC to give serious consideration to what is in the document”*
 - Large δm^2 oscillation physics
 - ν cross-section measurements
 - Technology development/demo
 - SP said – “Do what you can”
 - Stephen said not to include costing
 - But we should assemble as much information as possible for our internal discussions

LOI



- Outline:
 - Overview
 - Theoretical & experimental motivation
 - Facility
 - Targeting/capture
 - Transport/injection
 - Decay ring
 - Far Detector
 - Near Detectors
 - For oscillation physics
 - For cross-section measurements
 - Performance
 - Event rates
 - MC
 - Sensitivities
 - x-section
 - Conclusions

Writing Assignments



- I will act as editor
 - Use TeX/LaTeX, etc
- Volunteers?

VLENF?



*"What's in a name? That which
we call a rose
By any other name would smell
as sweet."*



- I have felt strongly that whatever we call this effort, NF should be in the name
- However, recent events have changed my mind
- What is unique?
 - A new way to produce high-energy ν_s

NuBeam



- Abstract

- Neutrino beams produced from the decay of μ s in a racetrack-like decay ring provide a powerful new way to study neutrino physics. The technique offers an alternative method to study large δm^2 oscillation physics, as well as to perform neutrino interaction studies. This technique is the only way to produce a large sample (factory) of high energy ν_e s.