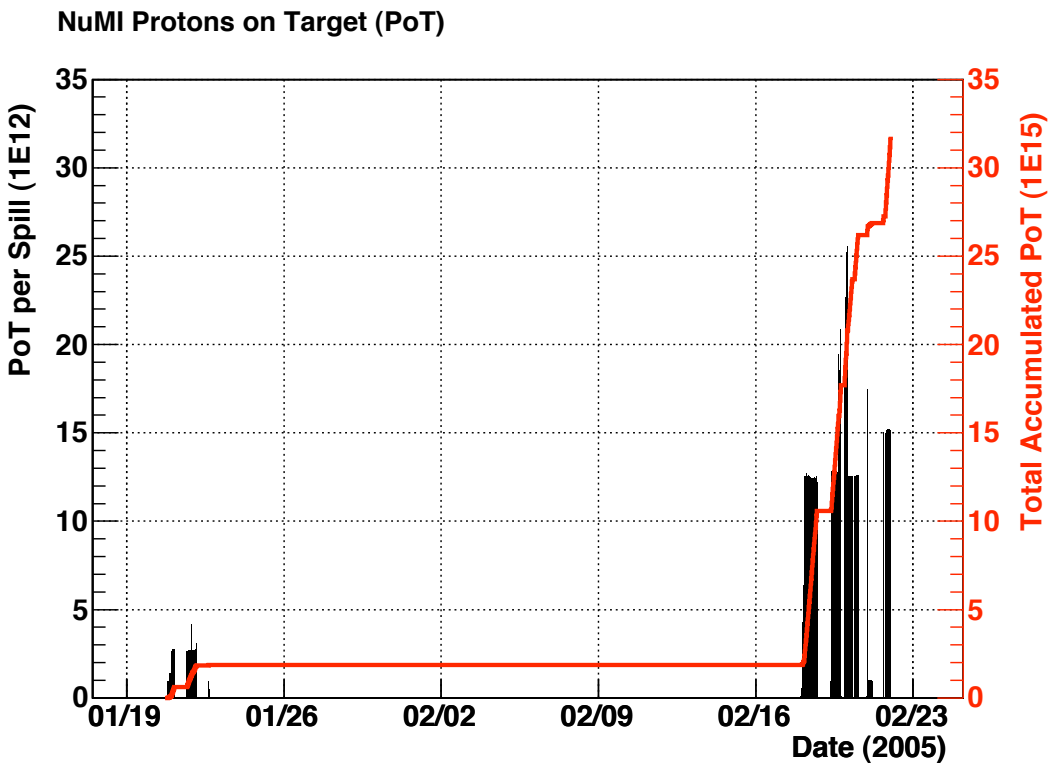
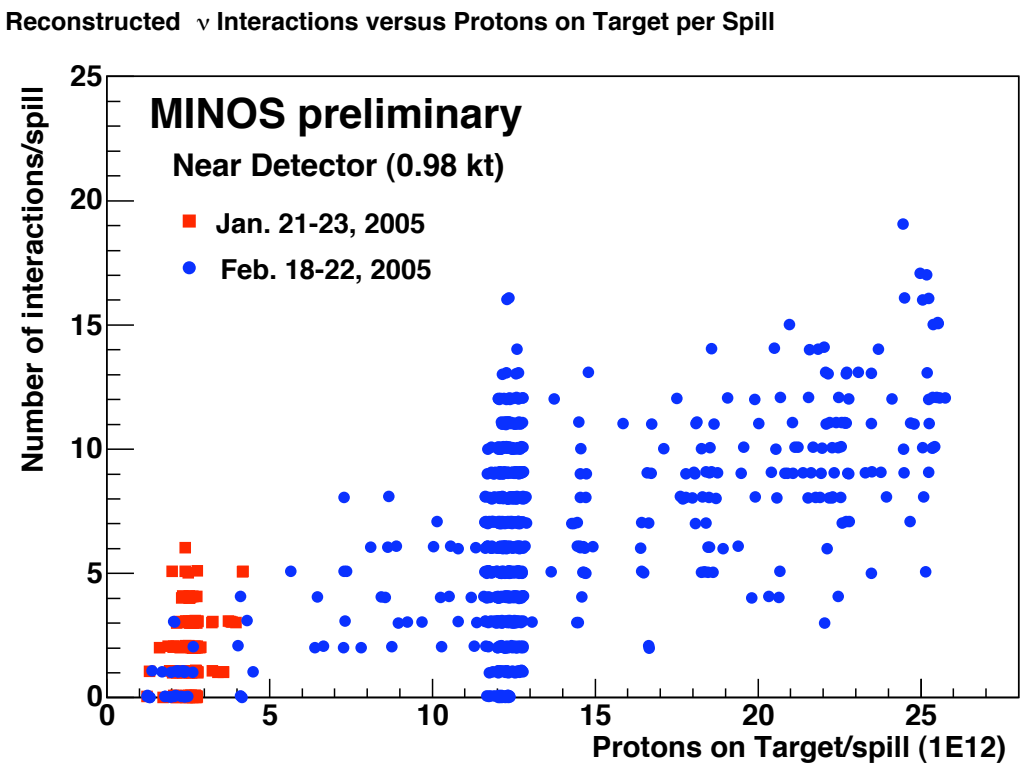
BNL work on MINOS





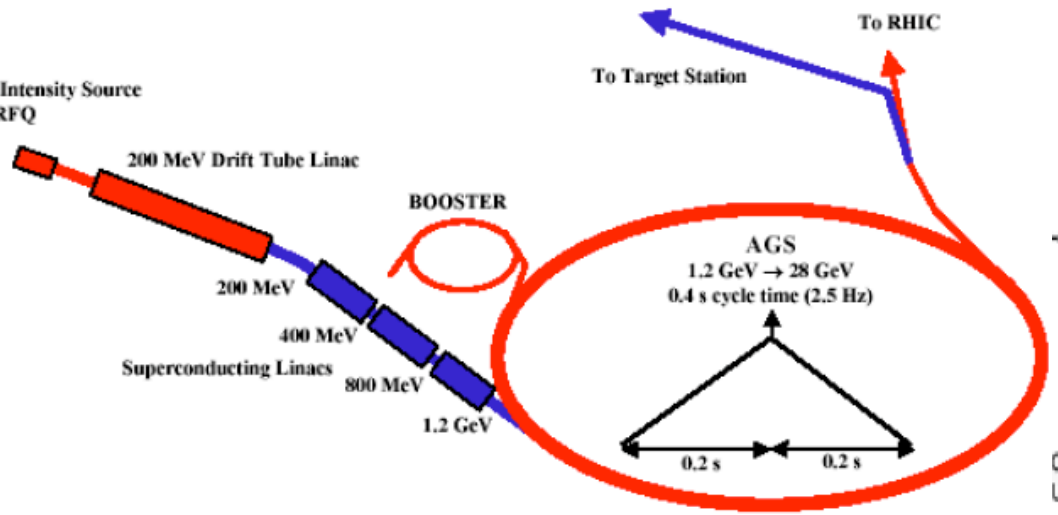
M. Diwan, B. Viren, M. Bishai, M. Dierckxsens
Currently working on software infrastructure, Beam monitoring, Beam-Detector interface

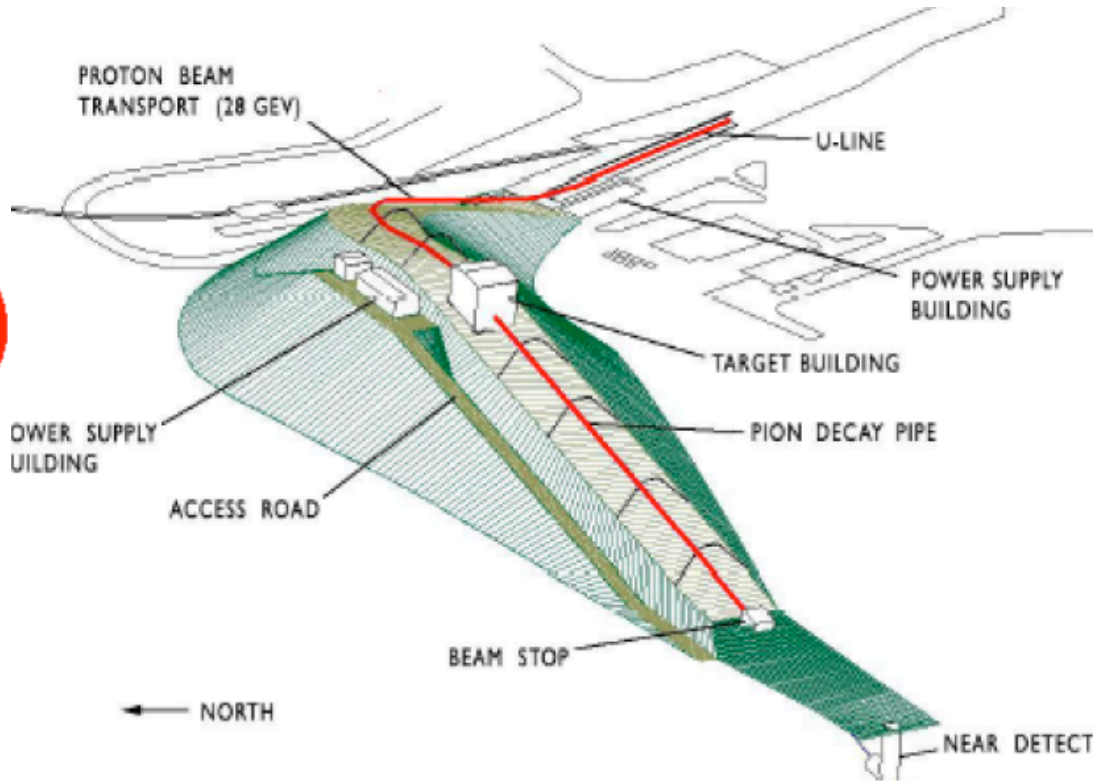
Analysis of near neutrino data pulse by pulse is our contribution.

BNL work on Very Longbaseline Neutrinos

- Extraction of neutrino parameters including CP with very long baselines is our concept.
- APS matrix report : Even without knowing the outcome of the initial steps in the program, it is clear that very large-scale, long-baseline experiments will provide the best sensitivity to all the oscillation parameters as well as to possible unanticipated new physics. They also provide the only possibility for quantitatively exploring CP-invariance violation in the neutrino sector.
- Superbeam design report: BNL-73210-2004-IR. Update to the report to lower costs and to make it better already in the work.
- Full participation in DUSEL process and 500 kT detector design.

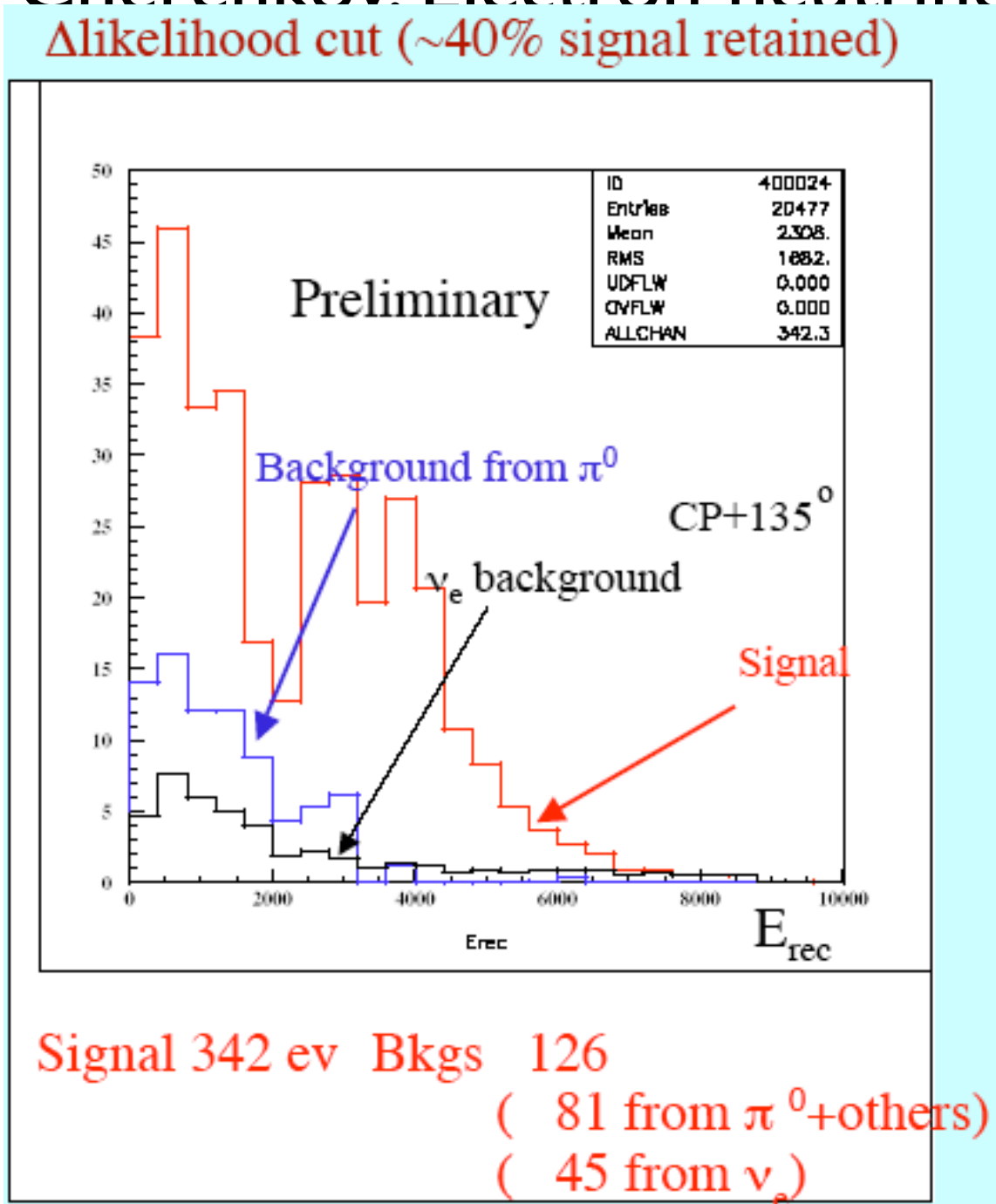
BNL-73210-2004





1 MW acelerator upgrade and the 2540km beam design have novel ideas, but very feasible execution.

Detector simulation on 500 kT water Cherenkov. Electron neutrino appearance.



- Collaboration with Stonybrook UNO group (Plots from Yanagisawa)
- Simulations using well understood MC and recon. code.
- Backgrounds for nu_e appearance are very reasonble.