Software Needs

Geoffrey Mills

NA61 Geant4 Simulation

- Existing G4 simulation "almost" incorporated into Shine package
 - Needs someone to replace Marek Szuba and complete development
- We need it for run plan validation
 - Acceptance
 - Target position optimization
 - Magnetic field setting(s) choices
 - Number of triggers required to cover P_L-P_T regions of interest

FTPC Software

- Simulation needed for design
 - Acceptance
 - dE/dx (?)

- Reconstruction software
 - Needed for Forward TPC design?
 - Tentative answer is no?
 - Should be in place for data runs

Electronics

- It doesn't seem like there is a need
 - Vittorio (?)
- Incorporation into simulation and reconstruction software
 - Handled by someone else (?)

Physics Goals

- Physics papers:
 - Pion and proton projectiles at 60 GeV/c
 - Proton, pion, and kaon yields
 - "A" dependence (Be, C, Al) at 60 GeV/c
 - Energy scaling (30, 60, 120) GeV/c
- Provide useful cross sections for T2K/NuMI/ LBNE simulations
 - Interface with neutrino beam simulators