

Detector Requirements

- Fiducial Mass:
 - > 500 kT if using only “clean” events.
Also needed for proton decay and neutrino astrophysics.
 - ~ 100 kT if fine grain and use all CC events.
Selected proton decay modes still at the frontier.
- Threshold: ~ 10 MeV, Dynamic range: contain 5 GeV μ
- Time res: few ns. Energy resolution: ~ 10 %
- muon/electron discrimination: < 1 %
- Pattern recognition:
 - 1, 2, 3 track separation
 - showering vs. multitrack separation.
 - need factor of 20-30 rejection capability around 1-2 GeV.
- Cost: 300 M\$ – 1000 M\$