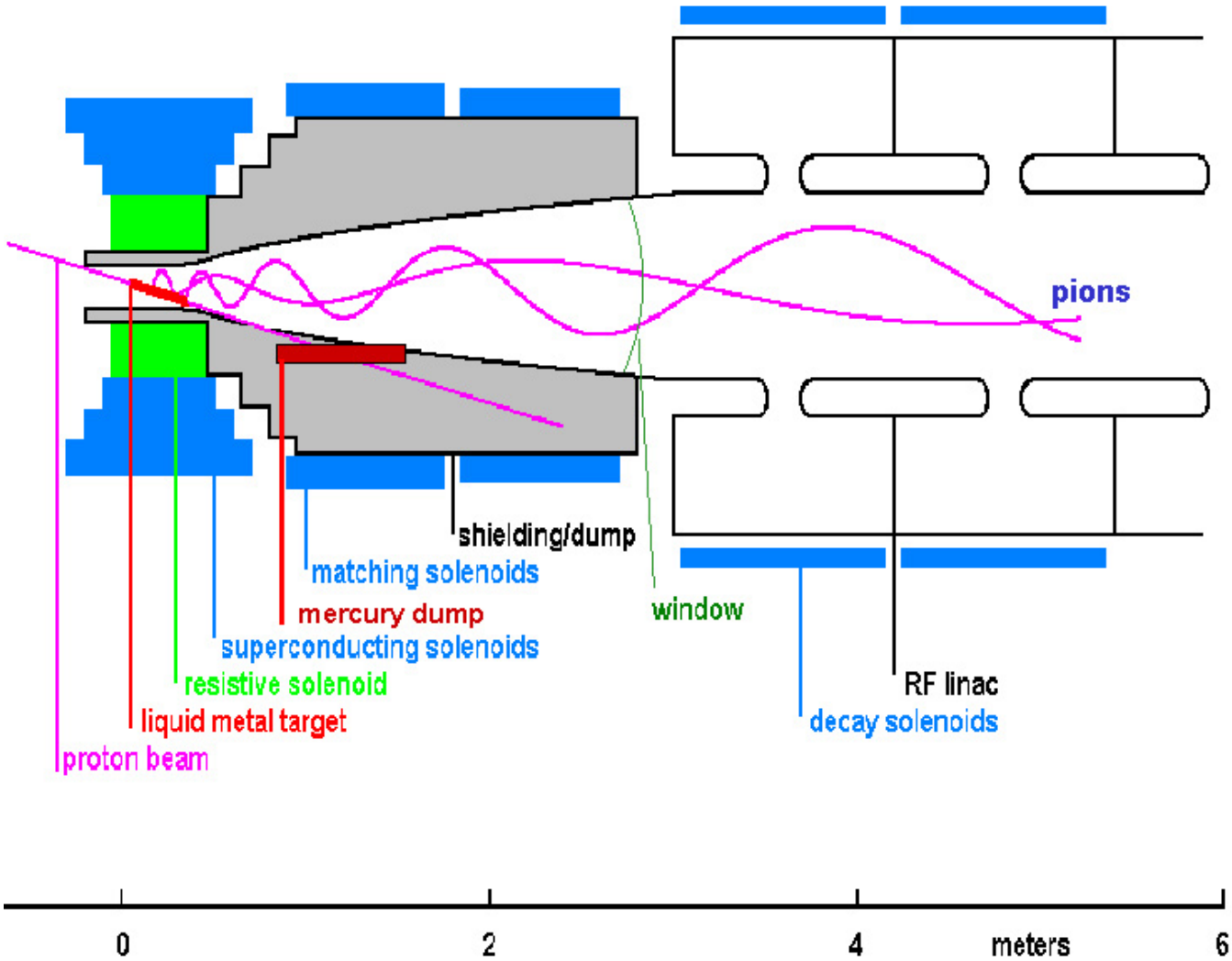
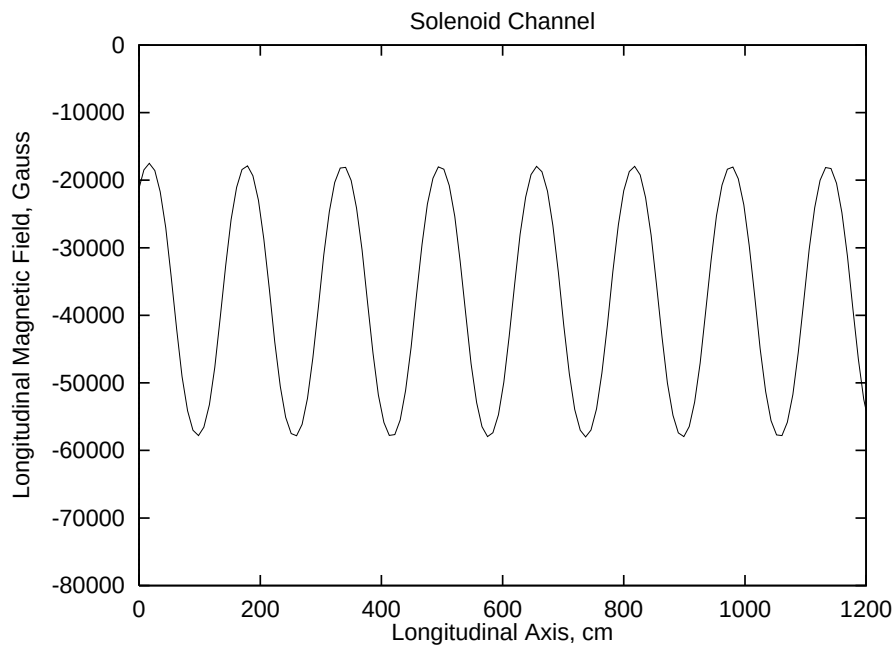
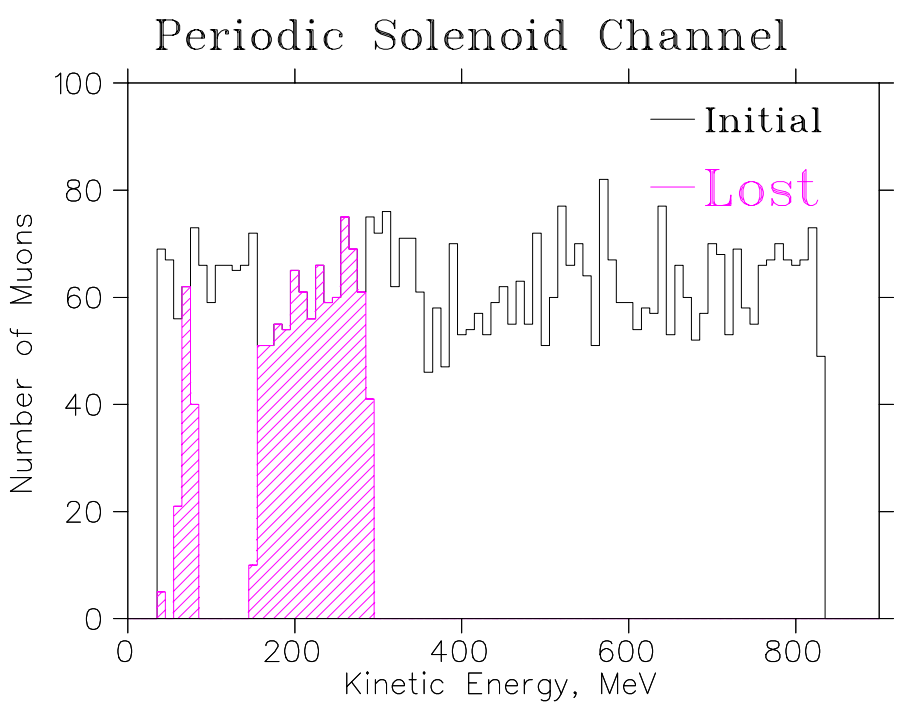
Overview of Targetry for a Muon Collider



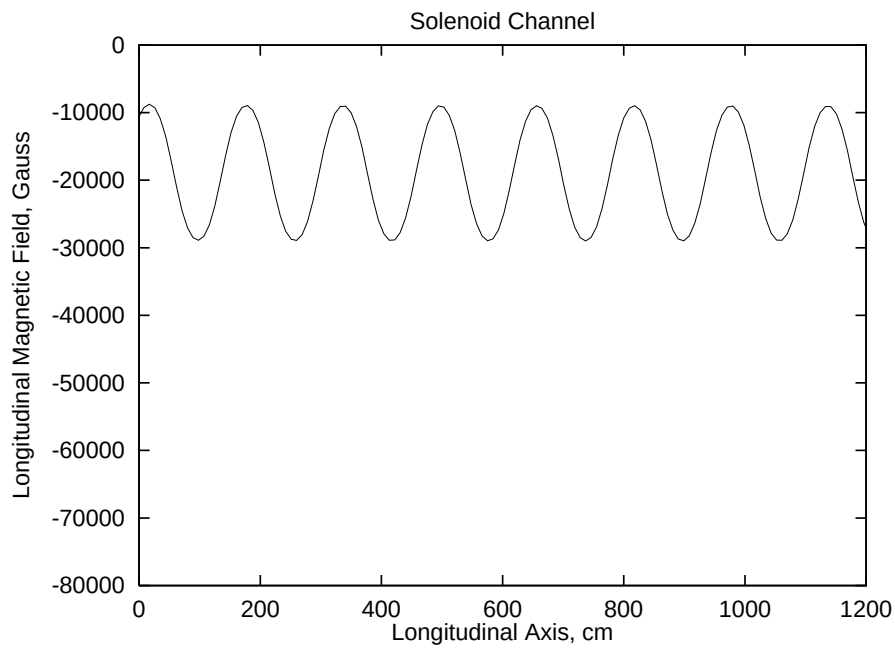
- 1.2×10^{14} $\mu^{\pm}$/s via π-decay from a 4-MW proton beam.
- Proton pulse $\approx$ 1 ns rms for a muon collider.
- Mercury jet target.
- 20-T capture solenoid followed by a 1.25-T π-decay channel with phase-rotation via rf (to compress energy of the muon bunch).

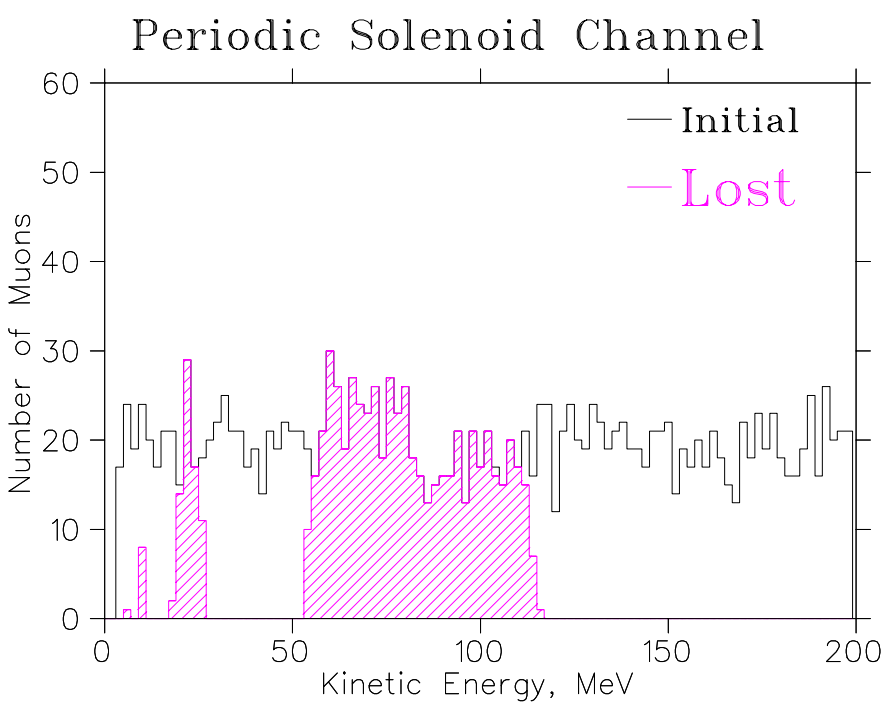
$B_z = 2 - 6$ T ; $\lambda = 160$ cm



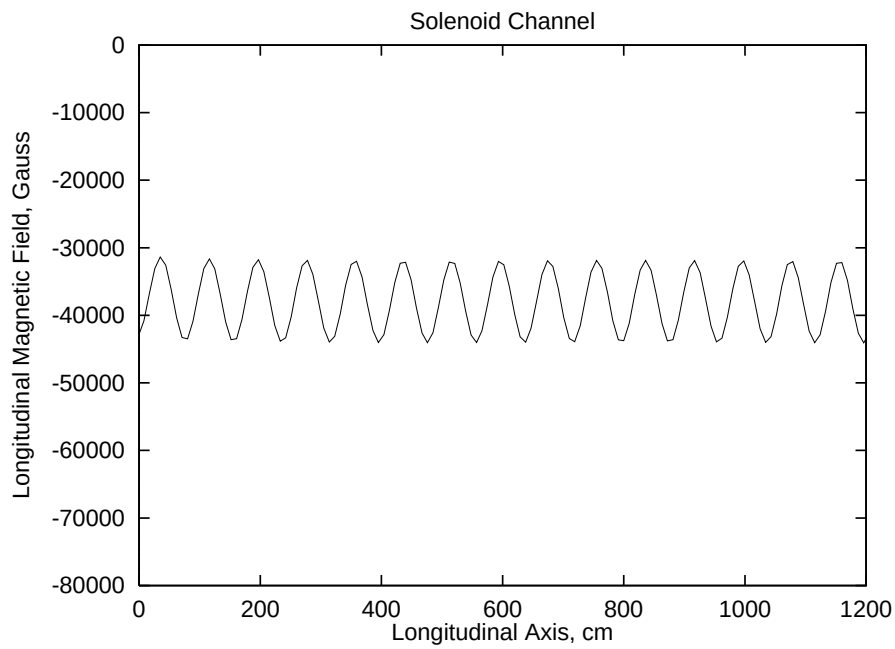


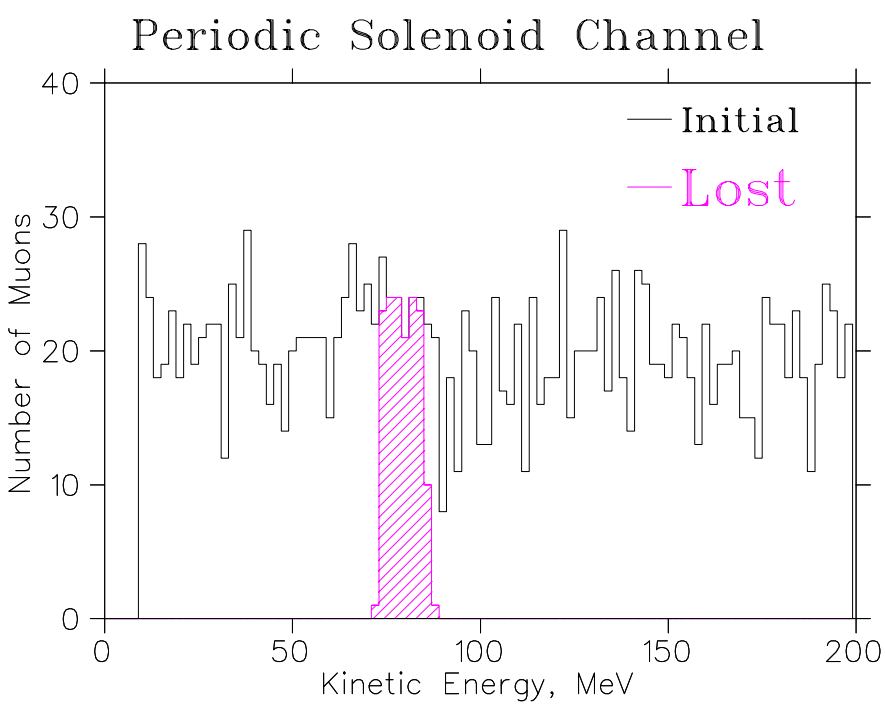
$B_z = 1 - 3$ T ; $\lambda = 160$ cm



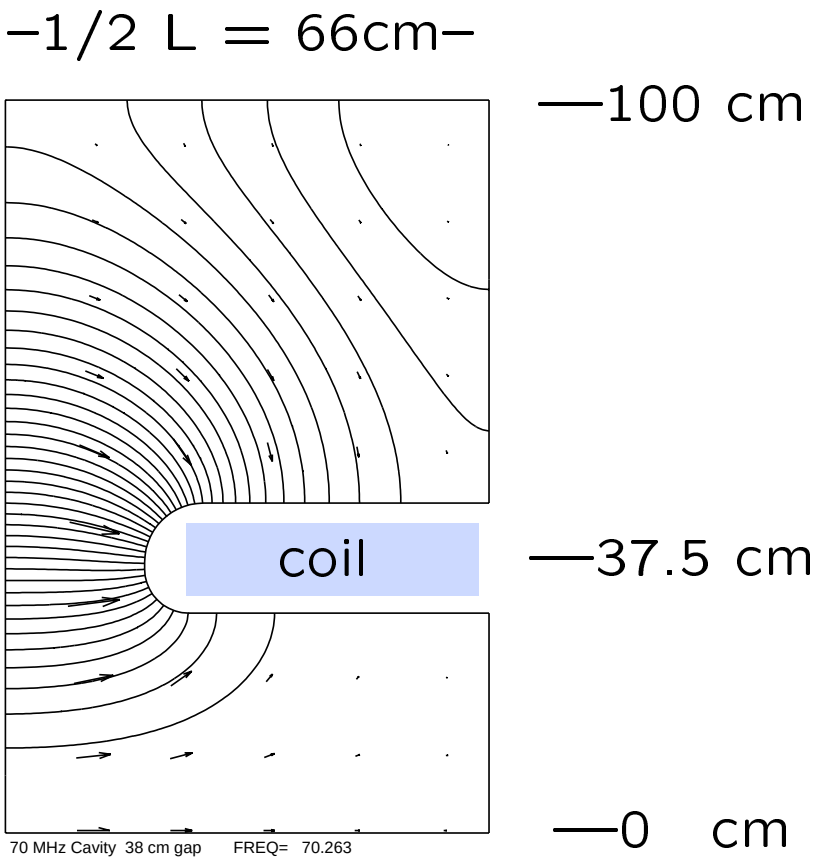
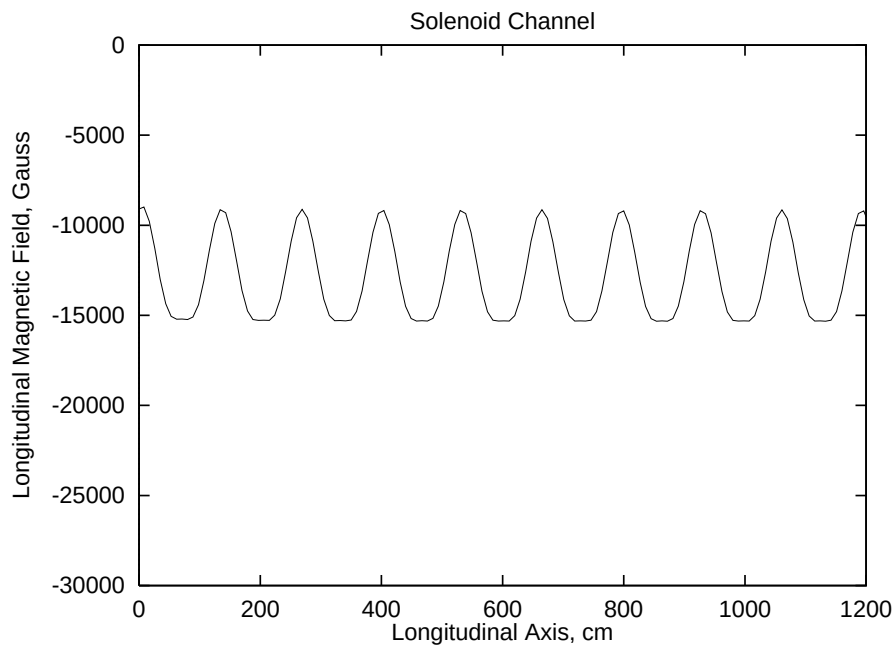
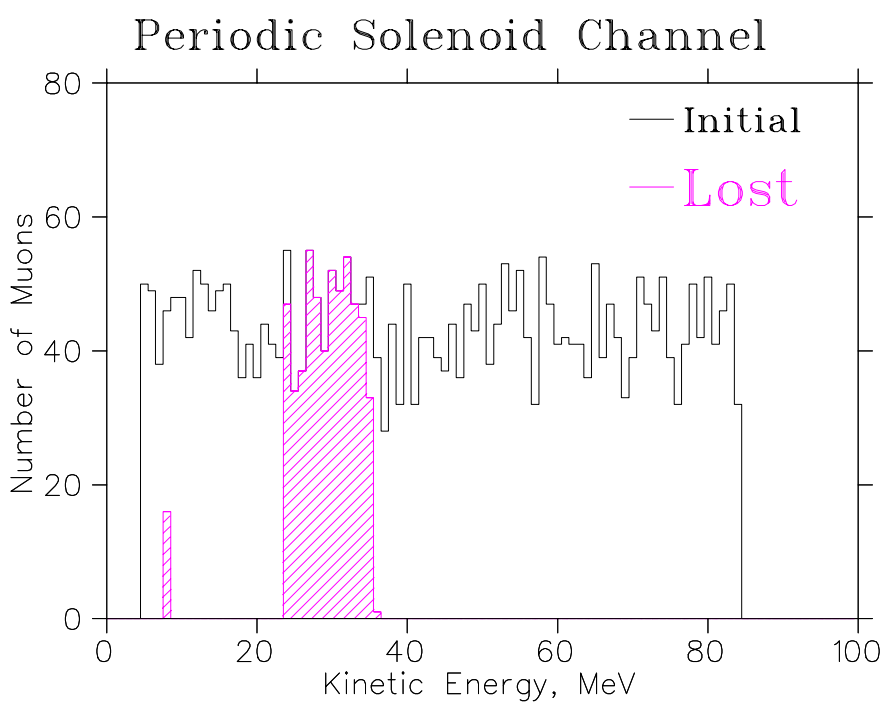


$B_z = 3 - 4$ T ; $\lambda = 80$ cm





Re-entrant 70 MHz rf cavity with SC coil



B_z = 1 - 1.5 T ; λ = 132 cm