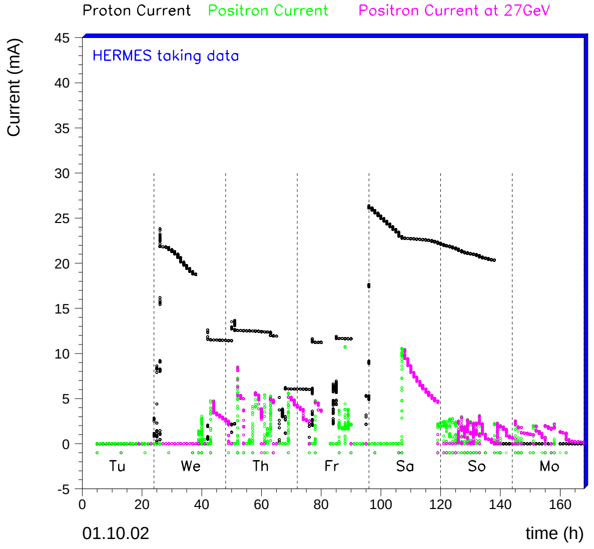
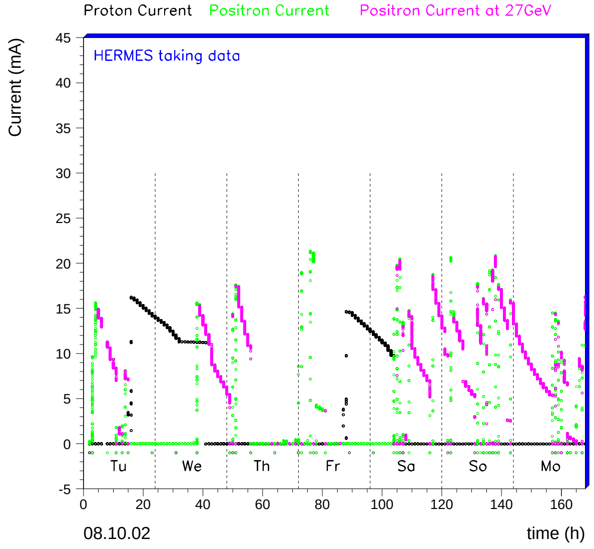
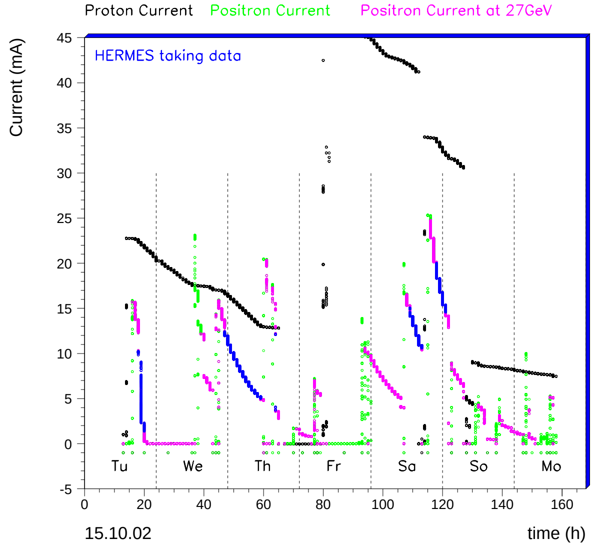
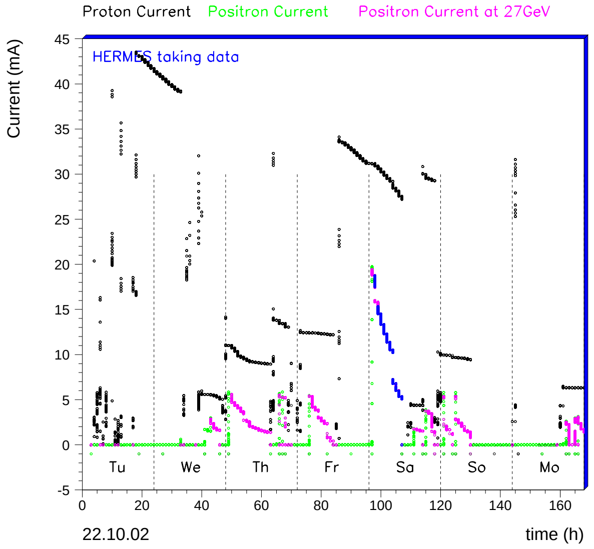
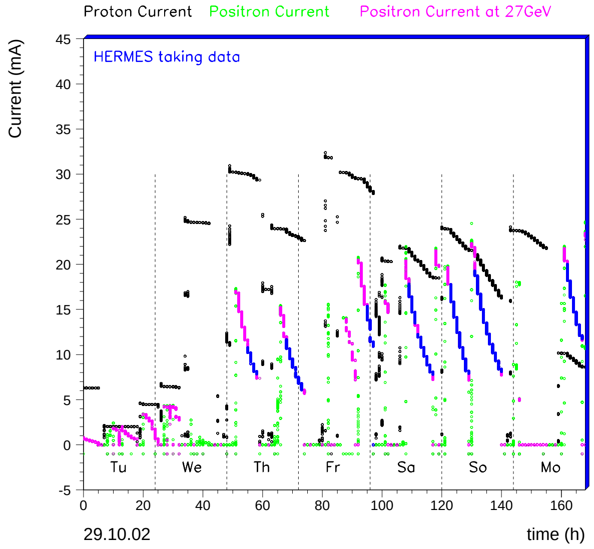
# Data Taking: October 2002



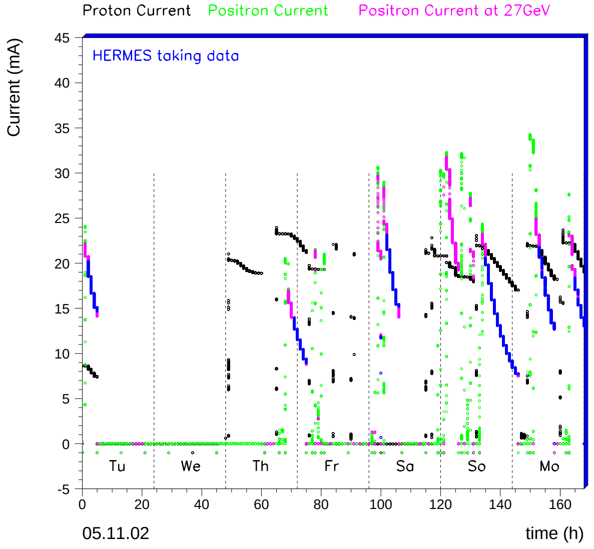



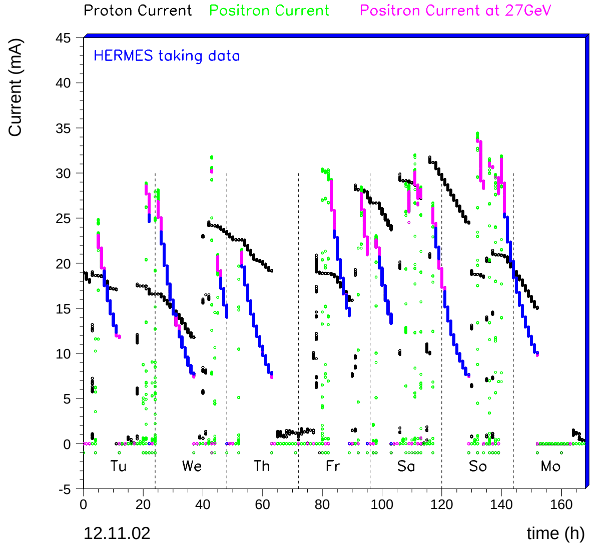



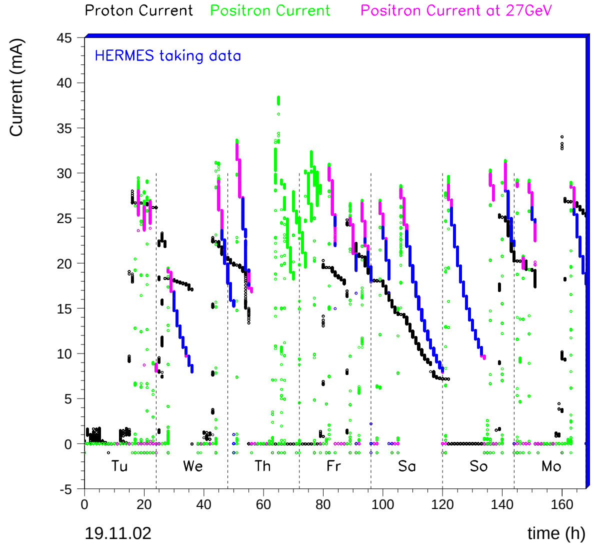



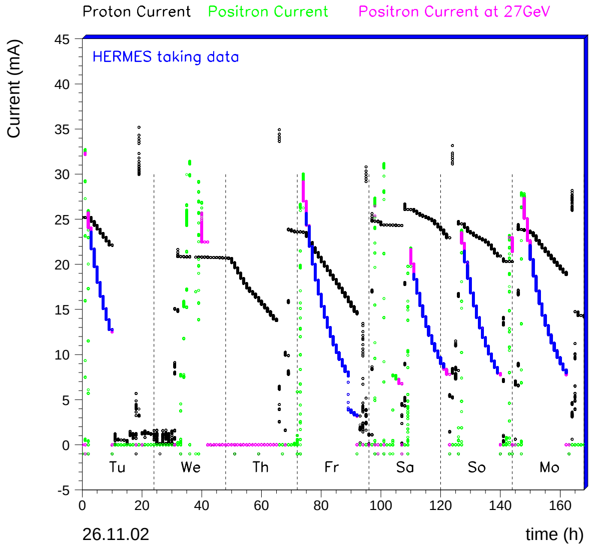



# *Data Taking:* November 2002



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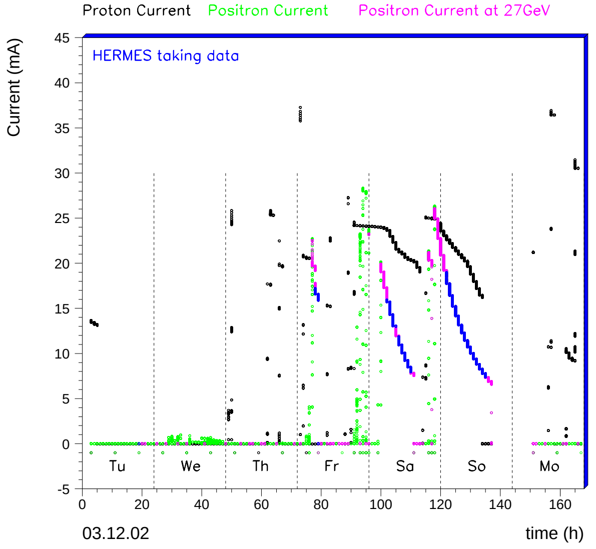
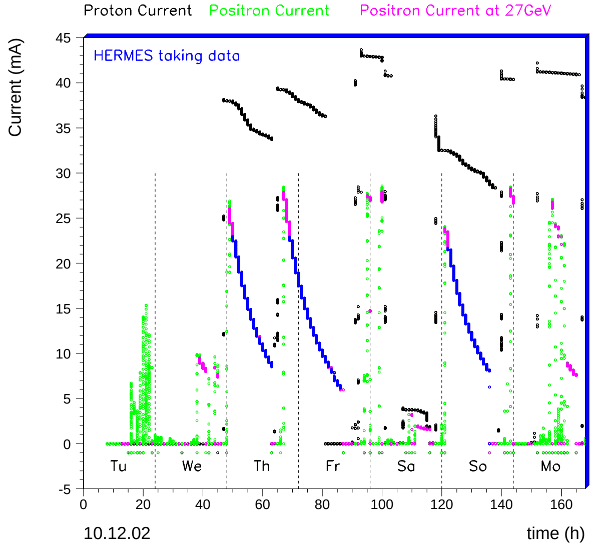
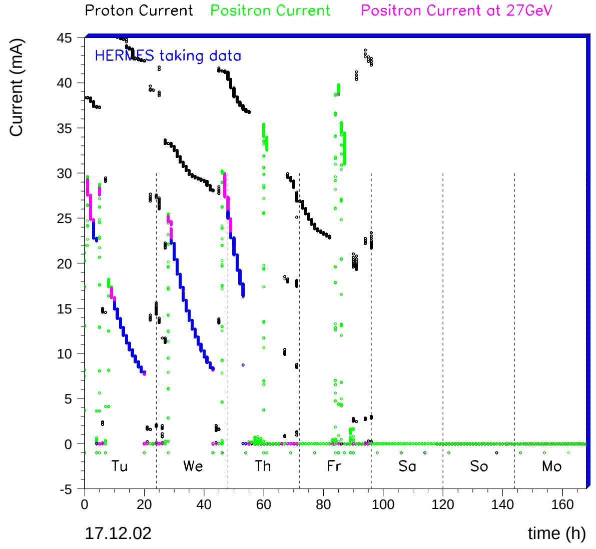
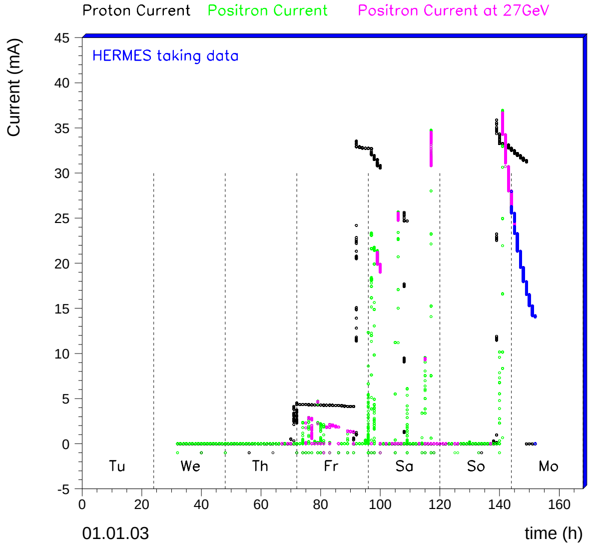
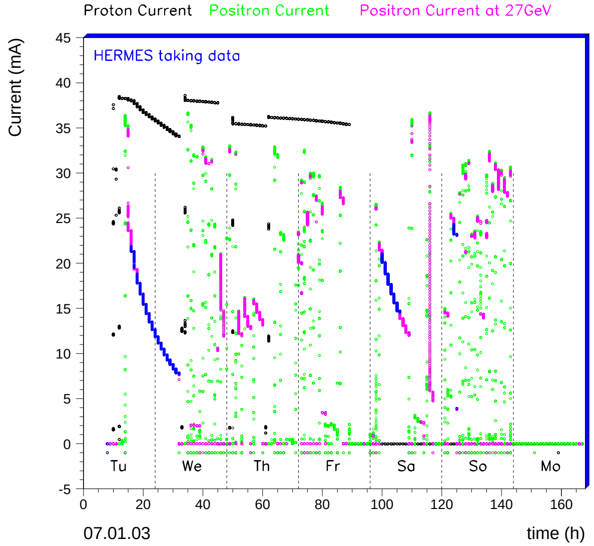


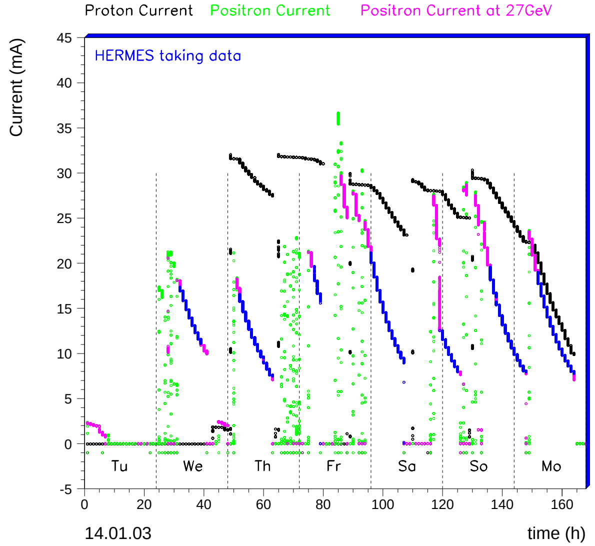



# *Data Taking:* January 2003



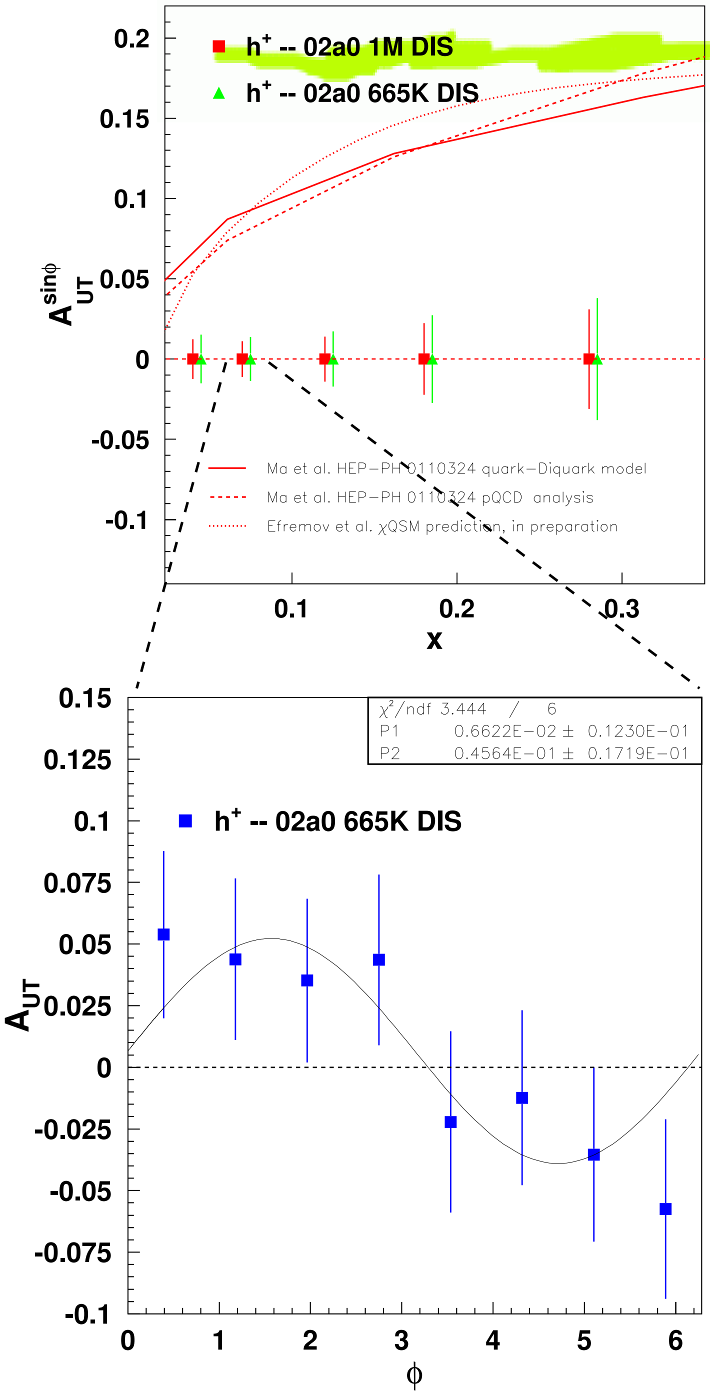



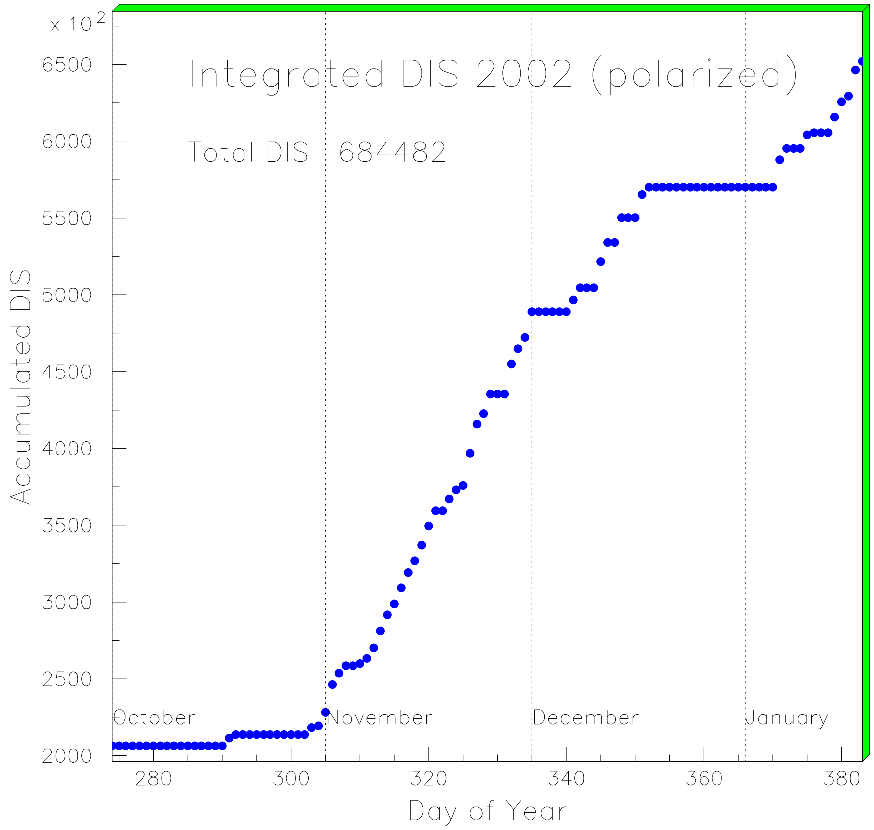
# Some Statistics

| Month | Delivered Fills | Used Fills | $I_e^{max}$ injected | $< I_e >$ Fills | $I_e^{max}$ HERMES ON | $< I_e >$ HERMES ON | DIS |
|---|---|---|---|---|---|---|---|
| October | 7 | 7 | 23 mA | 5 mA | 20 mA | 10 mA | 12.9 k |
| November | 43 | 36 | 33 mA | 20 mA | 28 mA | 15 mA | 252.9 k |
| December | 17 | 11 | 29 mA | 16 mA | 25 mA | 13 mA | 97.6 k |
| January | 10 | 8 | 36 mA | 16 mA | 26 mA | 14 mA | 81.9 k |

**Detector is in good shape to take data**

# *Taken Data*




**Projected Statistics till 17th of Feb.:**
**0.85 Mill. DIS << 1.4 Mill. DIS**

# Loss in Physics Program

## Physics Overview Nov 2001

| Running Mode **Target** / Running Mode **Beam** | Transverse Polarized Hydrogen $P_{\perp} \sim 0.8$ | Longitudinal Polarized Hydrogen $P_{\parallel} \sim 0.9$ | Unpolarized H,D,He,Ne,Kr, … 100 x ABS-density End-of-fill |
|---|---|---|---|
| Unpolarized Beam or Helicity balanced | Excl. SSA $\pi^+,\pi^-,\pi^0,\rho$,…. GPD-Amplitudes<br>Semi-Incl. SSA $\pi^+,\pi^-,\pi^0,\rho,\Lambda\uparrow$…. $\delta q$ , $H_1^{\perp}$ | ~~Excl. SSA $\pi^+,\pi^-,\pi^0,\rho$,… GPD-Amplitudes~~ | Inclusive<br>• e: Cross section ratios<br>Inclusive $\Lambda$ Pol.<br>Semi-Inclusive<br>• Fragm. Functions<br>• Nuclear effects |
| High polarization $P_B \sim 0.55$ | ~~Inclusive DSA $A_2 \Rightarrow g_2$ Sum rules , HT~~ | ~~Semi-inclusive DSA $\Delta s$, $\Delta$ubar-$\Delta$dbar Hadron pairs $\Rightarrow \Delta G$~~ | Exclusive<br>• Coherence length<br>• Color transparency |
| High polarization $P_B \sim 0.55$ + Helicity balanced | | | Exclusive<br>• DVCS<br>~~Semi-Inclusive~~<br>~~• $\Lambda \Rightarrow \Delta s$~~ |
| Charge balanced High polarization $P_B \sim 0.55$ + Helicity balanced | | | Exclusive<br>• DVCS |

- **assuming no significant polarization before January 2004**
- **switching to unpolarized target and recoil detector end 2004 - start 2005**

# Requests

- No start of shutdown without clear work plans
  $\longrightarrow$ guarantee foreseeable length 4 Month

- HERMES shutdown work
  assuming 8 hour working days, no weekends: 8 - 9 weeks
  if GA has to be modified: 4 additional weeks

- Run non-colliding beams between now and 17th of February
  average fill: $\sim$ 12-16 hours
  $\longrightarrow$ $\sim$ 2 hours (10% - 20%) on setting up collisions
  $\longrightarrow$ weighted with $< \mathrm{I_e} >$ effective gain (20% - 40%)

- Dump at 10 mA
  $\longrightarrow$ $\sim$ 4 hours (20% - 30%)

- Have hard competition with COMPASS and RHIC coming online now