MiniBooNE Report

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for the MiniBooNE collaboration

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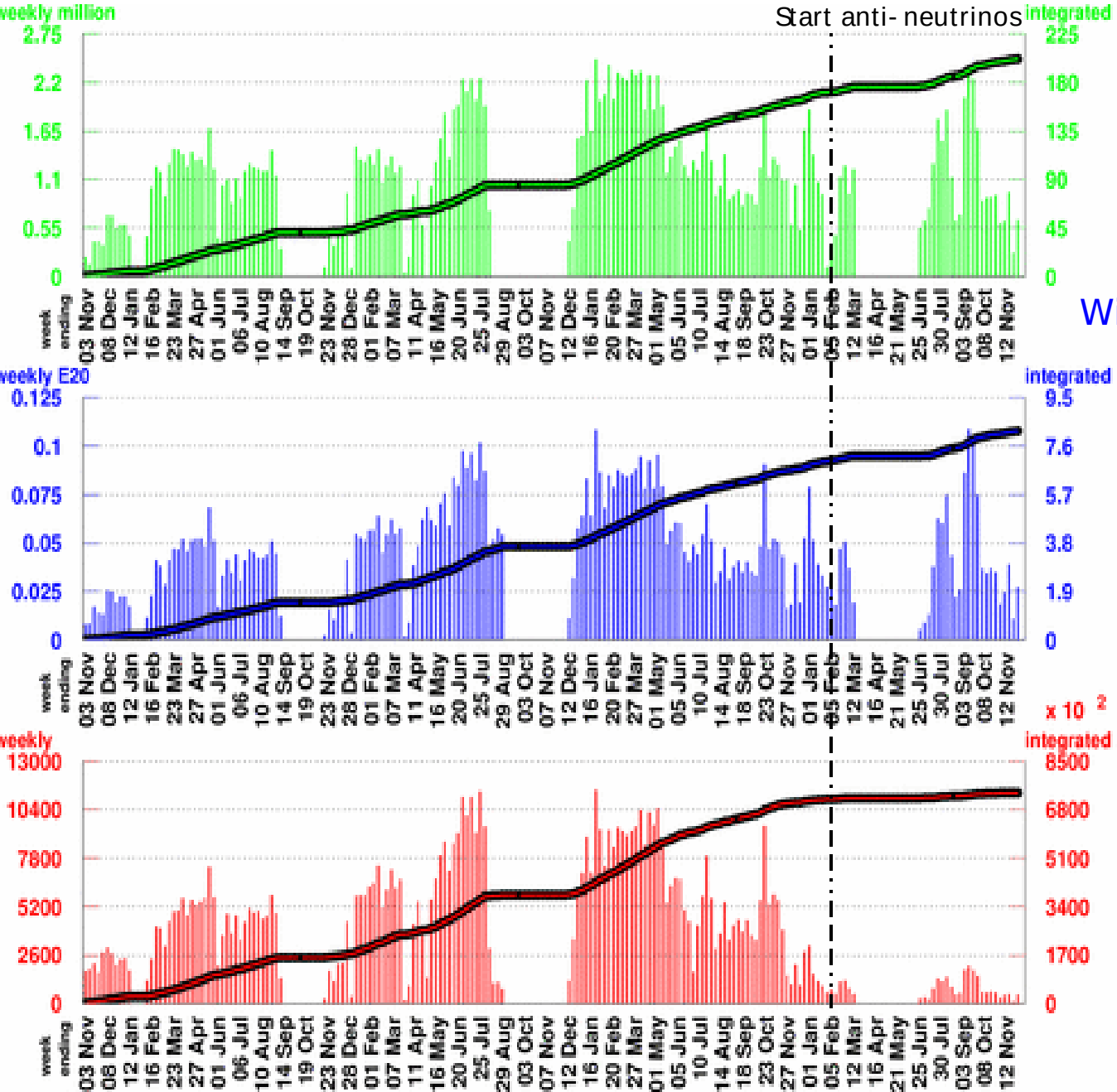
Week Summary 06 Nov – 13 Nov 0.27E19 POT, 71% Uptime

- Improved uptime.
- Booster $1D batch intensity increasing.
- Major Downtime:
  - 8 hrs, Finishing F-sector access (Nov 5).
  - 10 hrs, Bad IRM timing (acnet problems) (Nov 6).
  - 4 hrs, Booster work (Nov 7).
  - 3 hrs, MI12B access, water check (Nov 9).
  - 9 hrs, Booster chopper, Linac Klystron (Nov 10/11).

06 Nov – 13 Nov



Number of Horn Pulses

To date: 201.79 million

Largest week: 2.46 million

Latest week: 0.64 million

With Beam Information Cuts

Number of Protons on Target

To date: 8.1919 E20

Largest week: 0.1085 E20

Latest week: 0.0274 E20

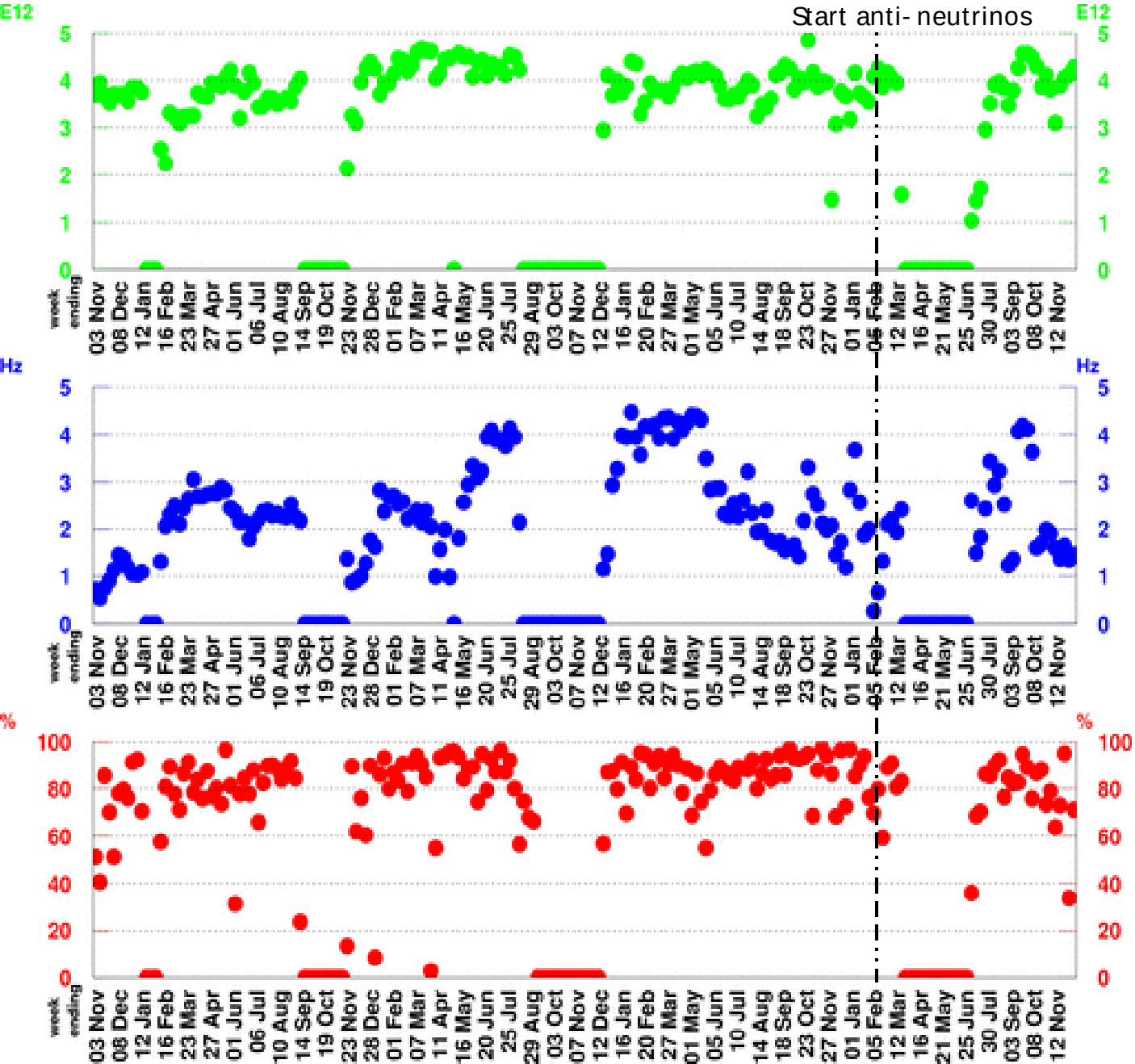
Number of Neutrino Events

To date:739568

Largest week: 11447

Latest week: 467

06 Nov – 13 Nov



POT per Horn Pulse

Largest week: 4.85 E12

Latest week: 4.27 E12

Horn Rate

(for time periods with beam)

Largest week: 4.48 Hz

Latest week: 1.47 Hz

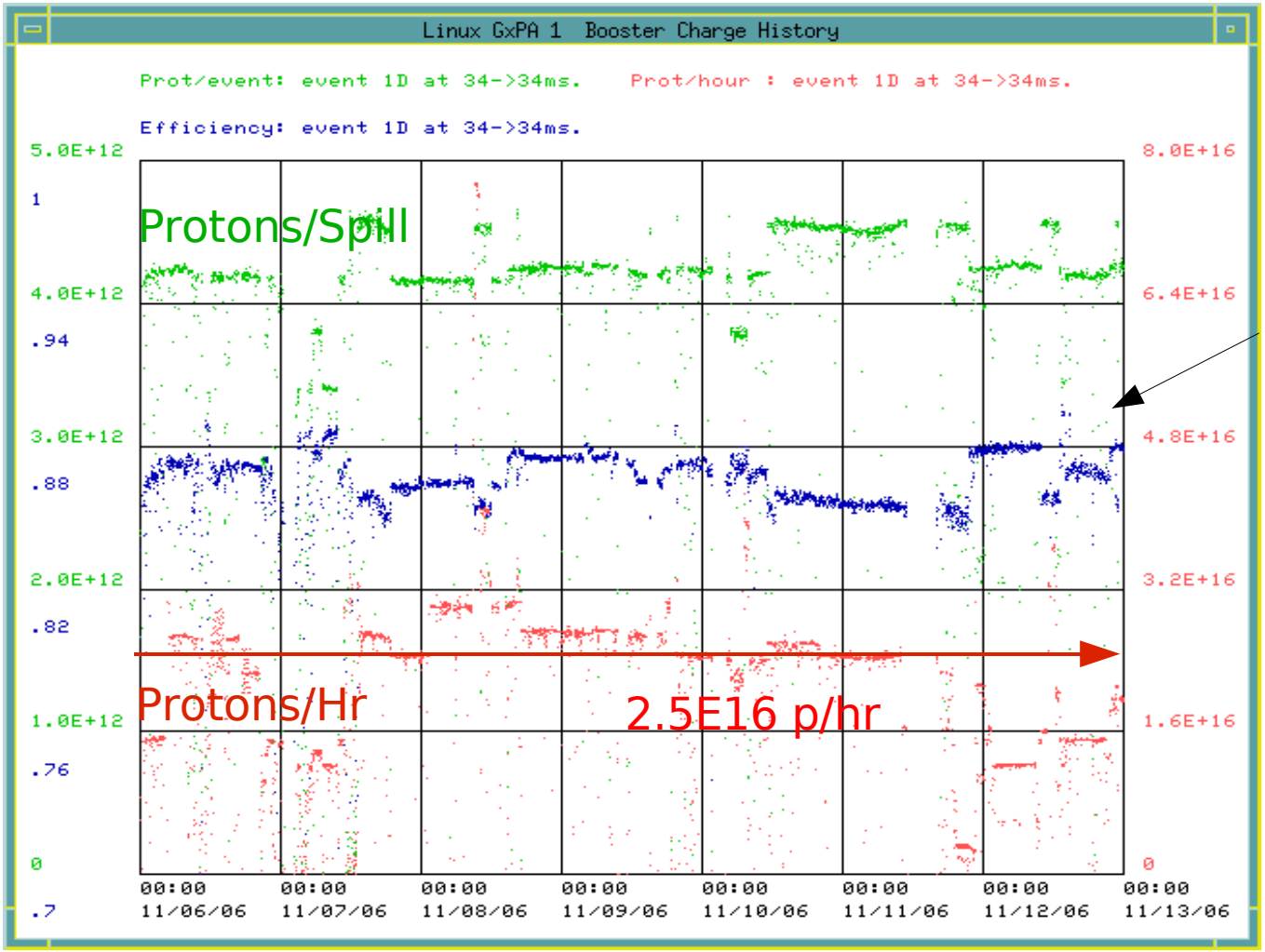
Beam Uptime Fraction

(fraction of time with beam)

Largest week: 97.4 %

Latest week: 71.2 %

One Week MB Proton/Hr Summary



Good Eff. ~88%

30 Oct

06 Nov

Running at 10 turns, increased batch size from Eff.

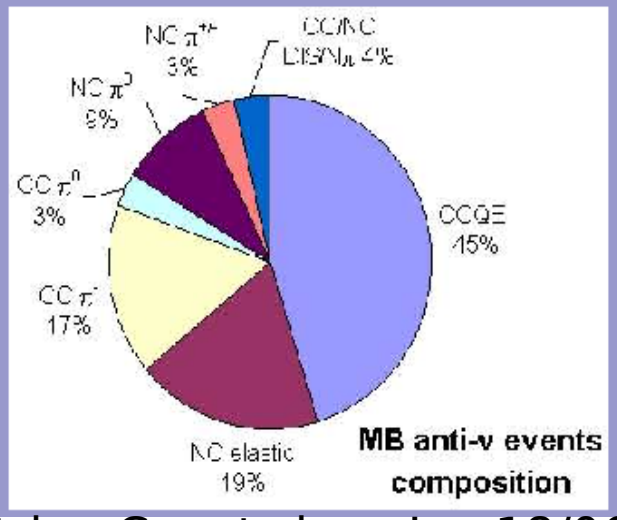
Antineutrino Scattering with MiniBooNE

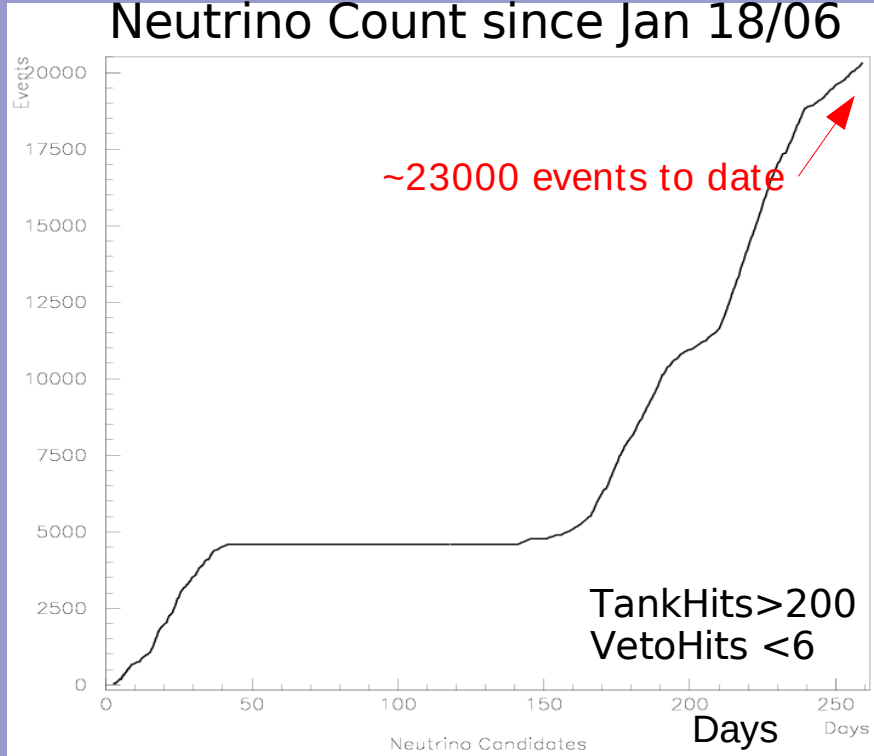
$\bar{\nu}$ events expected in next year:

- from 2E20 "protons-on-target" (POT)
- with fiducial radius of 500cm
- before cuts
- ν event (wrong-sign) contribution not included

$\bar{\nu}$ channel	events
all channels	54k
CC quasielastic	24k
NC elastic	10k
CC π^-	8.9k
CC π^0	1.7k
NC π^0	4.9k
NC $\pi^{+/-}$	1.8k

"CC" = charged current
"NC" = neutral current





1.2E20 POT collected so far....

2.5E16 Pr/Hr => 1.5E20 POT/yr

This Week's Plan

- Continue Booster tuning improvements and high uptime.
- Continue taking quality anti-neutrino physics data!