



APEX Status and Plan

Phil' s Meeting, March 19, 2013

M. Bai

Status

APEX

- So far,
 - A total of 14 new proposals
 - Majorities are 0A, ie relevant and direct impact on current run or hardware decision making
 - About 10 ongoing BeamExs
 - Range from polarimeter study, innovative instrumentation development, spin flipper, etc.
 - Elens commissioning
- Schedule
 - Back to 16 hours every one week, interleave with maintenance

Detailed look

APEX

- Direct run related
 - 3Qy correction at store: Luo
 - Optics measurements and corrections, GRD+Chuyu
 - Head-tail Chromaticity meter: Vahid
 - Transverse impedance: Blaskiewicz
 - Beam Base Alignment: Joanne Beebe Wang
- Elens related
 - Beam-beam studies: Luo, Simon
 - Electron beam dynamics: Elens' team
- Spin flipper related
 - Zero dispersion prime knob: Jorg
 - Beam stability with only 9MHz and BunchByBunch damper at store
 - single resonance excitation and spin flipping at store

Detailed look



- For future program
 - pA program:
 - Au at 25.4 GeV: Montag
 - DX aperture scan: Luo
 - Low energy program:
 - Proton beam at 6.25 GeV: Montag
 - Au beam emit at AtR and in the AGS at 2.5 GeV
- General Accelerator physics
 - Beam-beam study using ac dipole: Simon, Mei
 - Using orbit bump at arc sextupoles to correct beta-beat: Simon, Mei, Rogelio(CERN)

Tentative APEX Schedules for Polarization

APEX

session	Duration	studies
March 27	8am – 12am	Polarized protons
April 10	8am – 12am	Polarized protons
April 17	8am – 12am	Polarized protons
May 1	8am – 12am	Polarized protons
May 15	8am – 12am	?
May 29	?	?



APEX

APEX Schedule

March 27, 2013

8:00am	Spin tune measurement Bai, ...	End of Physics store
9:00am	BBA • Blue and Yellow Joanne	Injection
11:00am	Phase measurement + correction Chuyu, Minty	Injection
1:00pm	3Qy measurement + correction Luo, Bai, ...	Injection
2:00pm	Beam-Beam study Luo, Simon	store
4:00pm	Spin flipper setup Bai, Jorg, Oddo, ...	store
6:00pm	Ramp with only Bunch by bunch damper K. Mernick, KSS, ...	Ramp
9:00pm	BBQ chromaticity Vahid	Injection
10:00pm	DX aperture scan Luo	Injection
11:00pm	Back2Physics	
12:00am		