

Run 22 APEX Beam Time Request

Coordination Meeting, Jan. 11, 2022

Proposal List for Run 22

<https://www.c-ad.bnl.gov/BeamEx/>

[Ramp to 255 GeV with polarized protons w/ working point near 1/3](#)

[Stronger Spin Flipper](#)

[Test of spin transparency mode](#)

[Radial shift in RHIC using a dipole field offset](#)

[Optimizing and studying regular electron cooling at CeC PoP](#)

[Dispersive cooling](#)

[Studies of ions lifetime in the presence of electron beam](#)

[Studies of electron-ion heating effect](#)

[Test of tagging \$^3\text{He}\$ breakup in Hjet](#)

[E-lens Related Experiments](#)

[ATR ML Data Collection](#)

[Enhanced recombination studies](#)

G. Robert-Demolaize for Y. Luo

H. Huang

H. Huang

Guillaume Robert-Demolaize

S. Seletskiy, Y. Jing

Alexei Fedotov

S. Seletskiy

Sergei Seletskiy

B. Schmidke

Xiaofeng Gu

Kevin Brown

D. Kayran

Proposal	Spokesperson	Beam time request (h)
Radial shift test in RHIC	Guillaume	32
E-cooling with CeC PoP	S. Seletskiy, Y. Jing	22
Dispersive cooling	Alexei Fedotov	18
Ion lifetime in presence of electrons	S. Seletskiy	16
Electron-ion heating study	S. Seletskiy	16
Tagging ^3He breakup in H-jet	B. Schmidke	10
E-lens experiments	X. Gu	30
Test of spin transparency mode	H. Huang	18
Stronger Spin Flipper	H. Huang	10
ATR ML Data collection	K. Brown	(8, ATR)
Enhanced recombination study	D. Kayran	4
Ramp to 255GeV with near 1/3 working point	Guillaume	20 (?)

Total : ~180 hours

Readiness:

1) LeREC related experiments:

Per Alexi, for LEReC-based experiments we are waiting on 3.85GeV Au setup in RHIC. Once Au setup in RHIC is developed, we would like to request 5 hours to check electron beam in cooling sections, establish high-current running and establish cooling with new RHIC RF setup. After cooling is successfully established, we should be able to request time for LEReC-based cooling experiments.

2) E-lens related experiment:

Per Xiaofeng, “Elens is not ready until now. Will check tomorrow.”

3) Radial shift test and ramp development near 1/3 tunes

Per Guillaume, “Regarding both the Radial Shift and 255 GeV 1/3 tune experiments: both of these require extensive lattice and ramp development setup, which had to take a backseat to solving Run22 issues. I am reviewing what we have now and what remains to be done.”

We will have an APEX bi-weekly meeting on Friday, where we will look into possibility to have an APEX session on Jan. 19.