

Minutes for SAC quarterly, August 4

Frank C: Planning for 2021 scientist retreat, date will be Sept 9th and 10th. Two half days

First day addressing lab policy etc. with parallel.

Second day starts with summary and then focus on scientific program. Closeout talk. Be on the look out for info, emails, registration in coming days.

Developing charge for scientific working groups. Bullet points show ideas. Will be made more formal in the future.

Retreat is timely, recent announcement of resuming Snowmass activities.

Discuss on-going topics:

Scientific webpages: effort has stalled a little. Groups have their own pages. Continue discussion to try and normalize this effort. Requires some development to extract FermiWorks content to standardized webpage.

Professional development leave: initiative to implement policy a few years ago. Other labs have PDL policies.

Childcare/family sick leave benefits: enable option for employees to donate family sick leave to one another. Effort put on back burner. Inquired if 9 day cap could be removed. Pending.

Scientific staff mentoring: starting with postdocs. Reached out to division heads to see if it is worth expanding to having a lab wide standard.

Library move: plans to move library to 15th floor. Reached out to see if some departments would have space to store books. If you have interest, contact Heath.

Travel policies: Implementation of DOE and other requirements from site office. Would like to better understand impact to the scientific mission. Do we have fair opportunities to attend conferences and other meetings?

Climate survey: conducted in 2019. 75 questions, executed by 3rd party. Action taken to form teams. Covid stalled effort. Work in progress. Completed items (see slide).

2020 Winter break: lab did not shut down. Accelerator and experiments continued to run. 2021 will have something similar.

No meeting pilot: initial feedback. Scheduled to run until Aug 31. Idea was laudable. Not practical to block out specific times.

SAC nominations: soliciting nominations for 2021-2023 SAC term. Please send nominations to Frank or Anne. Term starts Oct 1.

Question about PDL - can you describe more about parameters
Answer from Anne - policy for scientists, paid. Parallel to sabbatical. Based on compensation from others source, labs will provide benefits etc.

Report from directorate - Kevin Pitts

Think that voice of scientists is crucial/SAC is crucial. Support these efforts. Few words about Covid. Hoped towards end of summer would see more relaxing of policies. Trends working against us. Mask policy back on site irrespective of vaccination status. Wear mask at gate. Continue to be in maximum telework mode for a while. 75% of employees have declared vaccination status. LDRD reminder.

Bob T - LDRD proposal season. Two information sessions coming up. Contact me about the questions. Brief reminder: group of scientists and technologists. All have good ideas. LDRD mechanism to explore great ideas. DOE big supporter. Seed money for non programmatic research. Preproposals due August 27th. 20% success rate.

Detector WG - Vadim

Activities - slowed since Snowmass paused. No meetings in 2021. Significant progress in R&D in all areas. Support mainly from LDRD, KA25 initiatives and ECAs. Most efforts well integrated into Snowmass process. Plan for big meeting in fall 2021. Start rebuilding momentum

Booster replacement plans - Jeff Eldred

Motivation - as scope of LBL neutrino program increased. Increased beam power in tandem with detector mass 2.4MW upgrade after PIP-II.

How to get to 2.4MW. Booster will not accommodate higher injection energy about 800 MeV (PIPII). Build a new RCS to replace booster. Wouldn't cross transition. Higher injection energy. Alternative scheme is take linac all the way to MI (8GeV linac).

Design criteria - assume PIPII happens as planned. MI should achieve 2.4MW (120 GeV) and at least 2MW (60 GeV). Robust experimental program.

Linac + RCS scenario - 2GeV injection energy. Space charge is manageable. Beam can be stacked in MI. Hot debate over whether to reuse RR or RR like storage ring.

At 2mA injection current - long injection time becomes issue.
Solution 1 -retrofit PIP-II linac for 5-10mA pulses

Solution 2 - create 2 get storage ring.
Path to 4MW MI by upgrading MI ramp rate.

Q from Bob T - any thought about slow extraction at 8GeV?

JE: A little bit challenging in RCS scenario. Consider using RR to delivery ring. Not sure if you can do SE from MI at 8 GeV.

Q from Jonathan Lewis - people thrown around 4MW. Caution that everything being planned for 2.4MW. What's wrong with using RR

JE: RR uses space for upgrades. Aperture issue, space charge, electron cloud issue.

Q from Sergei Nagaitsev - comments about 2GeV accumulator ring. Same issues at RR and MI sharing the tunnel. Removing RR means no way to access muon campus.