

Summary of work done

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Status of PSP projects

Machine	Description	People	Status
Pre-Acc	Improve neutralization in LEBT with N or Xe.	Dan	Will install programmable valve to test stand during next let up.
Pre-Acc	Laser collimation of head/tail of longitudinal beam. (LDRD)	Dave	In contact with vendor for selection of optical engine.
Pre-Acc/Linac	Simulation of PreAcc + Linac	Valeriy/Kiyomi/ Dan	There are vertical exit angles from both source and RFQ. Dan is working on putting permanent magnets into the source to correct this angle. For RFQ, there is not enough dipole strength, but Valeriy's calculations say that quads should also be able to straighten out the beam.
Pre-Acc/Linac	Checking efficiency with increased current in LEBT corrector	Kiyomi/Dan/Pat	Scan of LEBT correctors were done during study period (23 Jan 2019). To be completed during next study period in February.
Booster	Flat injection porch	Bill/Kiyomi/ George/Howie/ Chris	Tuning continues ... Eddy current effect has to be accounted for. Added new triggering to cogging module for ramp field amplitude jitter correction.
Booster	Adiabatic capture	Chandra/Tan	Phase slip is confirmed during study period. See Chandra's talk.
Booster	2 nd harmonic	Robyn/Tan	Still waiting for MI 2 PA test to be complete. ETA 1 week.
Booster	Wide bore cavities	Salah/Matt	Still waiting for inner conductor to be drilled at machine shop.
Booster	2 stage collimators	Valeriy/ Chandra	Had meeting on 12 Dec 2018 to decide on the length of the primary collimator. Work to see amount of shielding needed for tritium control in sump water.
Booster	Injection girder	Dave	Met with Eduard to discuss chute option for injection line (06 Feb)
Booster	Garnet loss improvements	Robyn/Tan	Got LDRD! (14 Jan 2018). Vendor submitted SBIR with help from us.
Booster	Mode 2 longitudinal damper	Nathan	Requires new broadband cavity. Also need specs. (benefits PIP1+)
LLRF	GMPS machine learning (get rid of reference magnet)	Bill	Got LDRD.
LLRF	Complete DDS upgrade, paraphase controller	Brian/Ed	Paraphase module to be updated to digital. Testing to be done during next week's study.
LLRF	Phase feedback	Brian/Ed/Bill/ Tan/Valeri/Craig	Work continues. See today's talk.

House keeping

Machine	Description	i/c	Comments
Linac	7835	Kiyomi/Tan	M&S budget settled. However FNAL budget is still not finalized!
Linac	Klystron	Kiyomi/Bill/ Tan	L3 still working on proposal. No production until Q4 2020. See email dated 02 Jan 2019.
Booster	BPM	Salah/Peter	Still has problems. Some BPMs may have incorrect polarities. Time stamps still incorrect. See today's talk.
Booster	Longitudinal coupled bunch mode dampers	Nathan/Bill	Work continues to add open loop transfer function capability.