

Summary of work done

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23 May 2019

Status of PSP projects

Machine	Description	People	Status
Pre-Acc	Improve neutralization in LEPT with N or Xe.	Dan/Pat	Test stand off. Will use source B for neutralization experiments during 9 day off.
Pre-Acc	Penning source from RAL is in Illinois!	Haider/Dan/Pat	Finally shipped from UK.
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	Today's talk
Pre-Acc/Linac	Checking efficiency with increased current in LEPT corrector	Kiyomi/Dan/Pat	Scan of LEPT 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	Machine studies on 24 Apr with new program in cogging card to improve amplitude jitter.
Booster	Adiabatic capture	Chandra/Tan	Machine studies on 24 Apr showed how we can improve phase and energy match between Linac and Booster with adiabatic capture curve. More tuning need.
Booster	2 nd harmonic	Robyn/Tan	ORC and HA being done.
Booster	Wide bore cavities	Salah/Matt	Surveying.
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 and injector civil construction to Booster	Dave/Salah/ Tan	Hall probes to be installed next week. ORBMP review next week (30 May)
Booster	Garnet loss improvements	Robyn/Tan	15 May meeting. New ideas on design of the cavity and solenoid.
Booster	Mode 2 longitudinal damper	Nathan	Mode 2 growth rate experiments done. Rise time about 2.5 ms. Requires 2 kV to damp.
LLRF	GMPS machine learning (get rid of reference magnet)	Bill/Brian/Kiyomi	Got task codes (05 Apr). Work to start soon.
LLRF	Complete DDS upgrade, paraphase controller	Brian/Ed	24 Apr studies showed problems with delays. Will have to try again.
LLRF	Phase feedback	Brian/Ed/Bill/Tan/ Valeri/Craig	Ed is nearly done with a first pass of the phase feedback at injection. Meet soon to discuss next step.

House keeping

Machine	Description	i/c	Comments
Linac	7835	Kiyomi	Will visit Photonis (Kiyomi, Tan and Bill). Waiting for security approval
Linac	Klystron refurbishment	Kiyomi/Bill/ Tan	Will visit L3. Waiting for security approval
Booster	BPM	Salah/Peter	Declared success on 8 March. Snapshot still needs work. TBT mostly ok.
Booster	Longitudinal coupled bunch mode dampers	Nathan/Bill	Not switched over yet. Still working on firmware in backup node. Saturation issues.