Studies on Fermi Grid with TRACK / June 2019

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1. Estimated time to translate lattice from TRACEWIN into TRACK, do simulation on Fermi Grid: 3+11=14 days. If no correction to the lattice is needed all work should be completed in around 3 weeks for the Gaussian Input Distribution. If lattice received early June 2019 and if 500 CPUs are available, by meeting of 06/27/2019 all error simulation should be completed.

2. All TRACK runs on Grid with 1×10^6 macro-particles. Static errors are uniformly generated and Dynamic Errors (Jitter) are Gaussian Generated cut at 3σ.

Study	# TRACK Runs on Grid	Estimate time
Jitter Studies $\delta_\phi = 0.1°$, $\delta_E = 0.1\%$	500	1 day
Jitter Studies $\delta_\phi = 0.3°$, $\delta_E = 0.3\%$	500	1 day
Jitter Studies $\delta_\phi = 0.5°$, $\delta_E = 0.5\%$	500	1 day
Jitter Studies $\delta_\phi = 0.7°$, $\delta_E = 0.7\%$	500	1 day
Jitter Studies $\delta_\phi = 1.0°$, $\delta_E = 1.0\%$	500	1 day
H^-Stripping (Gas, Lorentz, Blakbody, Intra-Beam)	1000	2 day
Static Studies Cavities+Solenoids $\Delta_{x,y} = 1.0$ mm	1000	2 day
Cavities $\delta_\phi = 0.1°$, $\delta_E = 0.1\%$	–	–
Quads $\Delta_{x,y} = 0.5$ mm, $\phi_z = 2$ mrad	–	–
BPMs $\Delta_{x,y} = 1.0$ mm, Resolution$= 30\mu m$	–	–
Static Studies Cavities+Solenoids $\Delta_{x,y} = 2.0$ mm	1000	2 day
Cavities $\delta_\phi = 0.2°$, $\delta_E = 0.2\%$	–	–
Quads $\Delta_{x,y} = 1.0$ mm, $\phi_z = 4$ mrad	–	–
BPMs $\Delta_{x,y} = 1.0$ mm, Resolution$= 30\mu m$	–	–