

2024-04-15 - Science Integration

Date: 15 Apr 2024

Attendees: Gilliss Dyer Mikael David Martinez Walter Wittmer Ginger DeContreras LaFortune, Kai Nicholas Pointing stability; getting on the same page with LLNL; working on ops model; alternate flagships for alternate laser

Discussion items

Item	Notes
2nd Petawatt	MM: Write up where we are on 2nd Petawatt. Adding would require construction and heavy reconfiguration. Pre-concept, and we cannot execute design right now. Science team needs to message 2nd Petawatt in general.
RR-SP pointing stability	
Radiation Source Term	
Spatial Chirp	Can we run with and without spatial chirp? Why high cost of moving grating? Gilliss - can we quantify what's happening at the beam at target (spatiotemporal)? Need a description at near focus. Reduce fluence. What safety factor are they planning for? Impact of spatial chirp + wavefront error? Desire for being able to dial out spatial chirp. Gilliss - we should write down Bill's thoughts and ask LLNL to perform analysis. Need technical note. MM: We need to be careful about asking LLNL to perform tasks that are out of scope. Gilliss - need details of compressor design. What software do we need to model properly? Gilliss - Nick side note - ELI MP is very stable (Thalus). Summary: <ul style="list-style-type: none">Ask Bill White about concernsLLNL or SLAC to model
Global Requirements Workshop	May 8, 9 or 10. Purpose is to confirm requirements and revisit particularly challenging requirements. MM: Any other reviewers? Gilliss: Recommends reviewer from Omega. Hans. Gilliss: One of top priorities (before parental leave) to get GRD into Jama.

Topics for Next Time

- Document Radiation Source Term assumptions

Action items

- ☐ LaFortune, Kai Nicholas RR-SP pointing stability - revisit stability budgets and assumptions. (on hold)
- ☐ LaFortune, Kai Nicholas Turn slide deck into Engineering Note and publish. (on hold)
- ☐ Mikael David Martinez to send LLNL presentation to LaFortune, Kai Nicholas Ginger DeContreras . (on hold)
- ☐ Ginger DeContreras to consolidate into TN. (on hold)
- ☐ Hardin, Corey L. Put together material for Mikael to brief Mike Dunne by 3/20/2024. Leverage slides/images from Facility Stress Test Workshop (vestibule/beam transport lines on 2nd floor, etc.)