FFA@CEBAF Working Group|Minutes

Meeting date | time: *7/14/2023*| 11 AM EST | Meeting location  [ZoomGov Meeting](https://jlab-org.zoomgov.com/j/1614898082?pwd=TnUzMS81M2sxbDZIbERJU01tYkJCQT09)

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| |  |  | | --- | --- | | Meeting called by | Alex B | | Type of meeting | Weekly Meeting | | Facilitator | Alex B | | Note taker | Alex C | | Timekeeper | Alex B | | Attendees  Alex B, Dejan, Alex C, Edy, Stephen, Scott, Randy, Vasily, Kirsten, Annika |

# Intro Discussion

* FFA 2023 planning coming together (Alex B), schedule is on Indico
  + Chris Prior giving talk about FFA field
  + Register for the meeting/workshop/school!

# Agenda topics

## Time allotted | - minutes | Agenda topic |*Error* *Tolerance Studies*| Presenter | *Donish*

* Donish is sick today, he won’t be presenting today.
* Next week instead.

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## Time allotted | 20 minutes | Agenda topic| Merger update | Presenter Vasily/Randy

* No slides for today’s presentation
* Vasily has been looking at the most recent ‘strong focusing’ design for the linacs
* Kirsten labelled this section ‘FFA transition’
* Currently using parameters for North Linac
  + Parameters for both linacs will be similar
* Problem with parametric resonance matching is that betas are hard to match- hyperbolic dynamics
* Uses ~30m to match exiting FFA arcs
  + Ten magnets in 30m manage all vertical matching
  + Only matching beta\_a
  + Dejan is amazed
  + Seems like adjusting current on 20 magnets will correct all optics for merging 6 passes
* Converged on the first try
* Stephen says “aim for spreader output parameters”
* Alex B offers to re-optimize linac optics including recombiner/spreader
  + Vasily agrees that this is useful

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## Time allotted | 10 minutes | Agenda topic AOB | Presenter All

* Edy wonders why the splitter configuration isn’t symmetric
  + Because access hatches are \*much\* easier to use if we don’t have four splitters
  + Engineering solutions are very much still in question
* We’re still thinking about how/which energies extraction will happen.
* ‘Ease of use’ is a good argument for fewer splitters
* Stephen is working very hard on the FFA magnets
  + Magnetic field is very good, but the epoxy gluing them together is a nightmare
  + Ask companies if they’re interested in sponsoring FFA2023
    - Magnet vendors
    - Hadron therapy groups
* Alex C looks for help with multi-pass correction