

# Update

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WP6 Meeting

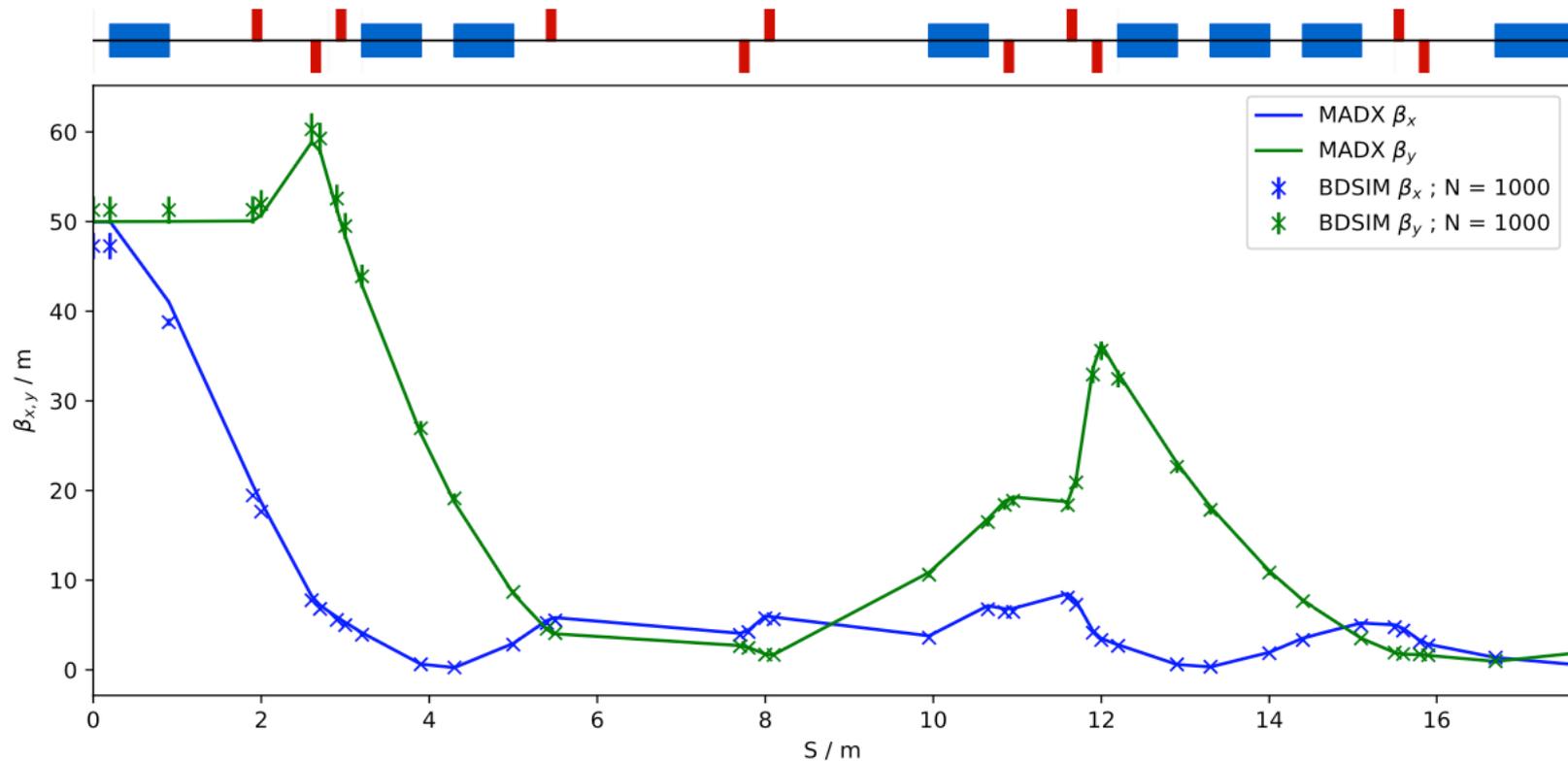
16<sup>th</sup> January 2024



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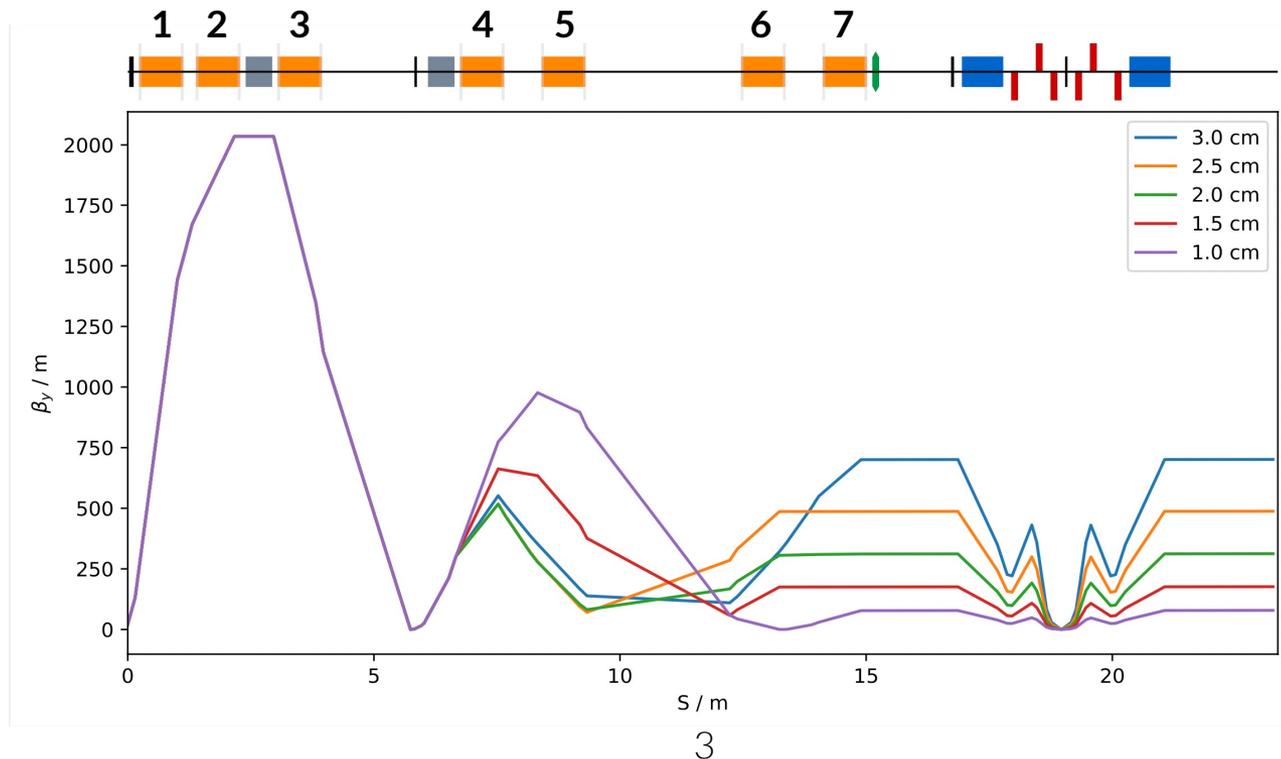


- Good agreement between BDSIM & MADX (model from Jaroslaw)
  - Emittance increased to  $1e-7$
- GPT model in development
  - Full model needed for space charge simulations (GPT emittance issues / bunch length in field)



# Proposed Stage 1 Length Changes

- Include additional space in baseline design update?
  - V4.6?
- Reminder:
  - **+ 0.2m** between GL4 and GL5
  - **+ 0.4m** between GL4 and GL5
  - **+ 0.2m** between GL6 and GL7
- Re-optimisation needed to mitigate space charge



- Done:
  - BDSIM model of proposed injection line update.
- Ongoing:
  - Base line design update report write-up
  - RF-Track – particle reader from BDSIM/GPT files.
  - FFA injection line simulations with updated beam
  - Gabor lens in BDSIM
  - Sync BDSIM and CAD model
    - Include drifts named to match components (profile monitors, shutters, etc)
    - Feedback to Clive
- Todo:
  - Performance evaluation of  $\pm 5\%$  beams
  - Update models of alternative baseline design (v5.5)
  - +....