The beam dynamics case of the BBWC (in HL-LHC era)

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Outline

- Review of seminal papers on the topic:
  - S. Fartoukh (2015) : optimal betx/bety, footprint, octupole compensation
  - K. Skoufaris (2021): DA scans, opening up parameter space

- Bit of theory: linearization of the IR with the help of BBCW
  - Discuss common assumptions: negligible phase advance, BBLR vs wire approximation

- Considering HL-LHC baseline optics: optimal operation points and DA gains
  - Discuss different configurations
  - Discuss previous considerations: optimal betx/bety, equal physical beam-wire distance, etc.

Thank you!