



High-performance Beam Simulation Tools

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Collaborators:

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Tasks from 2021 meeting completed during last year:

- ✓ high-performance-computing SIS18/SIS100 simulation model implemented (in xsuite) for new GSI GPU cluster with 400 AMD MI100 cards

Plans for 2023:

- experiments at CERN SPS:
 - field error identification with ML techniques (PhD thesis C. Caliori)
 - impact of space charge on vertical single-bunch instability
 - high-brightness beams (interplay of space charge and multi-bunch wake induced tune shifts)