MD 14325 request: Tests with full squeeze in the ramp in the ion cycle

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MD 14325: Full squeeze in the ramp

- **Motivation**
  - In **2023**, **losses** in the **ramp** strongly limited the performance of the ion run
  - The **mitigation** strategy for **2024** included more open collimators, **removing** the **full squeeze from the ramp** etc

- **Goals:**
  - Better **understand** whether the losses were related to the full squeeze being included in the ramp
  - Explore options to **bring it back** in the ion cycle to enhance the performance

MD 14325: Full squeeze in the ramp

- **MD idea:** Monitor the losses in the ramp with the **full squeeze in the ramp** for the following configurations:
  - Fill 1: Ramp with low intensity beam and 2024 collimator settings
    - test and validation of cycle
  - Fill 2: Ramp with 2-3 trains* and 2024 collimator settings
  - Fill 3: Ramp with low intensity and 2023 collimator settings (crystals at 5σ)
    - test and validation of cycle, loss maps and ASD at flat top
  - Fill 4: Ramp with 2-3 trains* and 2023 collimator settings (crystals at 5σ)

Optional

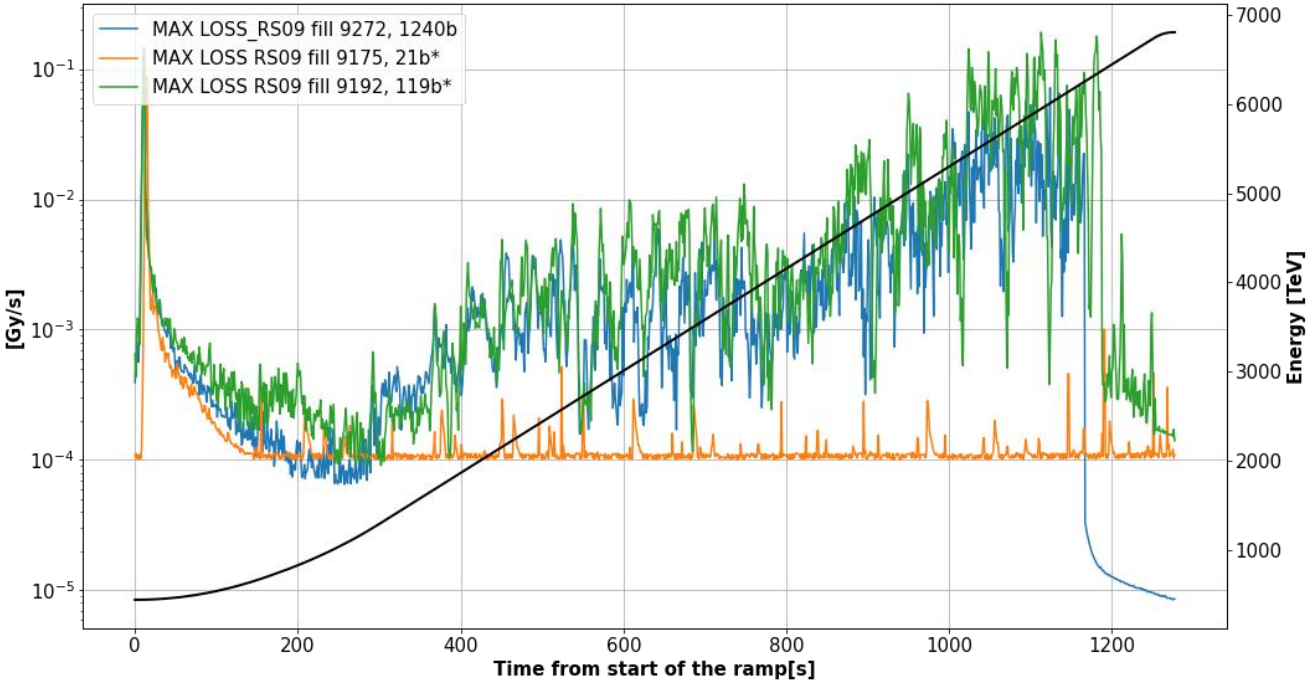
- **Beam and machine requirements**
  - 2-3 trains → 119b or 168b
  - New MD ramp with the full squeeze included
  - Changes: Collimation, Orbit, Optics

- **Time**
  - 5-8 hours (depending on 2 or 4 fills)

** Analysis of 2023 119b fill showed that the losses can be nicely scaled up to the full machine*

Back up

2023 fills analysis



** 21b and 119b fills are scaled up to 1240b*
Similar behavior for all RSs