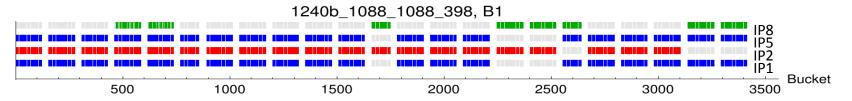


## Heavy-ion operation in LHC Run 3 and HL-LHC

- Typically one month per year of LHC heavy-ion operation in Run 3 and Run 4
- Reviewed and updated operational scenario for Pb-Pb and p-Pb
  - New Pb filling schemes for more collisions at LHCb (recent request)
  - Optimized abort gap keeper allows injecting more bunches



- New performance estimates using two independent luminosity simulation codes
  - Collider Time Evolution (tracking code), and Multi-Bunch Simulation (differential equations)
- Detailed benchmark shows excellent agreement with LHC data
  - Integrated luminosity in Pb-Pb fills typically reproduced within a few percent

