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## Secondary beam line efficiency studies at the CERN PS East Area

*Tuesday, 21 May 2024 16:00 (2 hours)*

The East Area at the Proton Synchrotron has undergone extensive renovations, marking a significant milestone in its more than 55-year history as one of CERN's enduring facilities for experiments, beam tests, and irradiation. This facility, which serves over 20 user teams for about 200 days annually, now boasts an enhanced infrastructure to cater to future beam test and physics requirements. It also features new beam optics that ensure a better transmission and purity of the secondary beams, with the addition of pure electron, hadron, and muon beams. With this contribution, we present the ongoing performance studies underway following the implementation of the East Area secondary beamlines in the BDSIM (Beam Delivery Simulation) Monte Carlo simulation software. Using BDSIM, the impact on the transmission, purity, and overall efficiency of the secondary beams is assessed to the measured performance, paving the way for possible additional modifications and/or further upgrades.

### Footnotes

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