



Run3+4 simulations

Feedback from PWG-MM

ALICE Software and Computing Week
April 3, 2019

Questions

- How is the current ratio MC/Data motivated?
 - No real motivation for MM. For $dN_{\text{ch}}/d\eta$ analysis (AA) the number of events needed is usually around 1M, both for data and MC
 - New analyses like p_{T} spectrum as a function of R_{T} in pp collisions, would require the usage of unfolding (work in progress). We expect that a ratio MC/Data $\sim 40\%$ would be sufficient
- Do you need full simulation of the background event?
 - For our observables this is needed, but the statistics which we need is not large

Questions

- ❑ Which signal biasing techniques are already used and which other techniques could be used? For the $P(N_{ch})$ analysis in pp we have used MC samples with “flat multiplicity” distributions. This is particularly needed for unfolding (e.g. 20 M pp collisions were generated $\sim 10\%$ of the LHC10c period)
- ❑ Which detectors/secondaries really need to be simulated for your analysis ? Central barrel

For discussion

- ❑ Should we be worried that the v_2 disagreement between charged kaons and neutral kaons is just a visible sign of a bigger disagreement for most v_2 measurements?
- ❑ Should we be worried that the disagreement between 2010 and 2011 Pb-Pb results for Lambda is just a visible sign of a bigger disagreement ?
- ❑ Should we try to ensure that Pb-Pb data sets are benchmarked with a number of standard analyzes (e.g. v_2 , RAA, spectra) in the future to avoid this?

If we are worried about this, how can we handle this from the simulation side?