

Identified particle production in $p + p$ collisions at $\sqrt{s} = 62.4$ GeV in STAR

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It is important to study the particle production as a function of both transverse momentum (p_T) and particle species which provide crucial input for modeling of hadronic interactions and the hadronization process in high-energy collisions [1]. In this contribution, we will present the results on π^\pm , K^\pm , p and \bar{p} in $p + p$ collisions at $\sqrt{s} = 62.4$ GeV from STAR experiment at the Relativistic Heavy Ion Collider. The results are obtained for the midrapidity region in the range $|y| < 0.1$. Charged hadrons are identified by using specific ionization energy loss at the low momentum region (about 1 GeV/c) with STAR's Time Projection Chamber detector [2,3]. We will present the final corrected p_T spectra, particle yields (dN/dy), various particle ratios and mean p_T . The results will be compared with different models namely PYTHIA and PHOJET.

References

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2. H. Bichsel, Nucl. Instrum. Meth. A 562, 154-197 (2006).
3. B. I. Abelev et al., [STAR Collaboration], Phys. Rev. C, 34909 (2009).

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