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Study of the running coupling constant of □– mesons and protons from □+□ and □+□ interactions at 4.2 □□□/□

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This paper is devoted to the study of the running coupling constant α_s (q^2) of π^- meson and protons from p+p and p+C interactions at 4.2 GeV/c. It is well known fact that the more correct value of the cut parameter Λ_{QCD} in the formula of α_s (q^2) plays very important role in the obtaining the right values of the strong coupling constant α_s (q^2). The value of Λ_{QCD}, determined in previous works, was employed in our calculations,
\begin{equation}
\Lambda_{QCD}= (c \hbar) GeV = 0.197 GeV
\end{equation}

The values of α_s (q^2) obtained with this cut parameter are compared to the QCD predictions.

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