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Pentaquark Search in the Strange Sector at ALICE at the LHC

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The recent discovery of the hidden charm pentaquarks $P_c(4312)^+$, $P_c(4440)^+$, and $P_c(4457)^+$ by LHCb has reopened the question of whether pentaquarks exist in the strange sector. The strangeness enhancement, measured by ALICE as a function of increasing charged particle multiplicity even in p - p collisions, further adds to the likelihood of observing a strange pentaquark state. Following analogous decay channels for the P_c^+ states into the strange sector, results for $P_s \rightarrow \phi p$, $P_s \rightarrow \Lambda K$, $P_s \rightarrow \Lambda K^*$, and $P_s \rightarrow \Sigma^* K$ through the invariant mass analysis in p - p collisions at $\sqrt{s} = 13$ TeV are presented. Upper limits to the yields of P_s states will be determined.

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