
Pionic decays of light mesons in relativistic quantum mechanics

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In relativistic quantum mechanics based on point form of Poincare-invariant quantum mechanics obtained the integral representation of $V^\pm \rightarrow P^\pm \pi^0$ decay constant. It's shown that soft pion theorem usage leads to the numerical results for $\rho^\pm \rightarrow \pi^\pm \pi^0$ and $K^{*\pm} \rightarrow K^\pm \pi^0$ decays consistent with modern experimental data. As a result, self-consistent approach for light meson observed characteristic calculation is proposed.

Bounds on $V - V'$ mixing from resonant production of extra gauge V' boson decaying into VH at the LHC

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