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Type: Talk

$f_1(1285) \rightarrow e^+e^-$ decay and direct f_1 production in e^+e^- collisions

Tuesday 22 August 2017 15:00 (20 minutes)

The width of $f_1(1285) \rightarrow e^+e^-$ decay is calculated in the vector meson dominance model. The result depends on the relative phase between two coupling constants describing $f_1 \rightarrow \rho^0 \gamma$ decay. The $\Gamma(f_1 \rightarrow e^+e^-)$ is estimated to be $\simeq 0.07 \div 0.19$ eV. Direct f_1 production in e^+e^- collisions is discussed, and the $e^+e^- \rightarrow f_1 \rightarrow a_0\pi \rightarrow \eta\pi\pi$ cross section is calculated. Charge asymmetry in the $e^+e^- \rightarrow \eta\pi^+\pi^-$ reaction due to interference between the $e^+e^- \rightarrow f_1$ and $e^+e^- \rightarrow \eta\rho^0$ amplitudes is studied.

Topic:

Topic: High Energy Particle Physics

Summary

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Track Classification: A High Energy Particle Physics: