

XVth Quark Confinement and the Hadron Spectrum



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Light scalar mesons in semileptonic decay of charm meson at BESIII

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The nontrivial quark structure of light scalar mesons $f_0(500)$, $f_0(980)$ and $a_0(980)$ remains controversial for many years. In passed years, BESIII has collected 8.0 and 7.33 fb^{-1} of e^+e^- collision data samples at 3.773 and 4.178-4.226 GeV, respectively. In this talk, we will review all the studies about light scalar mesons via semileptonic D decays at BESIII. These studies includes the decays $D^0 \rightarrow a_0(980)^- e^+ \nu$, $D^+ \rightarrow a_0(980)^0 e^+ \nu$, $D_s^+ \rightarrow a_0(980)^0 e^+ \nu$, $D^+ \rightarrow f_0(500) l^+ \nu$, $D^+ \rightarrow f_0(980) e^+ \nu$, and $D_s^+ \rightarrow f_0(500)/f_0(980) e^+ \nu$. A short outlook would be given based on BESIII new data in the future.

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