

Leptonic and semileptonic D decays at BESIII

Wednesday, 18 August 2021 09:20 (20 minutes)

BESIII has collected 2.9 and 6.3 fb⁻¹ of e⁺e⁻ collision data samples at 3.773 and 4.178-4.226 GeV, respectively. We report recent measurements of the (semi)leptonic decays $D(s) \rightarrow l + \nu$ ($l = \mu, \tau$) and $D(s) \rightarrow X l + \nu$ [$X = K^*, \rho, \eta', a_0, K_1$, and $l = e, \mu$]. The decay constants $f_D(s)$, the semileptonic form factors $f(0)$ and the CKM matrix elements $|V_{cs}(d)|$ are determined precisely. These results are important to verify the LQCD calculations of $f_D(s)$ and $f(0)$ and the CKM matrix unitarity. Tests of lepton-flavor universality with (semi)leptonic D decays will also be reported.

Primary author: 潘, 祥 (高能所)

Presenter: 潘, 祥 (高能所)

Session Classification: Parallel Session II: Hadron and Flavor Physics

Track Classification: 2. 强子物理与味物理