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Pure and semi-leptonic decays of D(s) at BESIII

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The world's largest e+e- collision samples at Ecm = 3.773, 4.009, 4.178, and 4.6 GeV have been accumulated at BESIII. By analyzing the decays of D(s)+ -> l+v (l=mu, tau) and D(s) -> (P/V) l+ v (l=e, mu), we report the determinations of CKM matrix elements |Vcs(d)|, the D(s)+ decay constants fD(s)+, the form factors f^K/pi_+(0) of D semi-leptonic decays. These are important to calibrate the LQCD calculations of fD(s)+ and f^K/pi_+(0) and to test the CKM unitarity, and determine the eta-eta' mixing angle.
In the partial wave analysis of the decay D+ -> K- pi- e + v, we find that the dominant bar{K}*(892)0 component is accompanied by an S-wave contribution. This analysis also allows us to extract the helicity basis form factor of the resonance in a model-independent way.
Also, for the first time, we search for D+ -> gamma e+ v and D+ -> D0 e+ v as well as for D -> a0(980) e+ v.

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