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Leptonic decays of charmed mesons with Wilson quarks on $N_{\rm f}=2+1$ CLS ensembles

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We present results for the pseudoscalar decay constants $f_{D_{(s)}}$ from the RQCD and ALPHA collaboration's joint effort. Our calculations are based on the $N_f = 2 + 1$ CLS ensembles at six values of the lattice spacing in the range from a = 0.098 fm down to a = 0.039 fm, with pion masses spanning from approximately 420 MeV to below the physical mass. The ensembles lie on three trajectories in the quark mass plane enabling tight control of the light and strange quark mass dependence. The overall uncertainty of the results achieved for the decay constants and their ratio is significantly less than 1 percent. We also outline our effort on the analysis of charm vector and tensor decay constants.

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