

# New leptonic $D_{(s)}$ results for HFLAV2021

1.  $D^+ \rightarrow \tau^+ \nu$ , BESIII, PRL123, 211802(2019).
2. Updated  $D_s^+ \rightarrow \mu^+ \nu$  result and new  $D^+ \rightarrow \tau^+(\pi^+ \nu) \nu$  result, using 4.18-4.23 GeV data at BESIII, arXiv:2102.11734.
3.  $D^+ \rightarrow \tau^+(\rho \nu) \nu$ , BESIII, is hopefully submitted around April.
4.  $D^+ \rightarrow \tau^+(e \nu \nu) \nu$  [BF error:  $\sim 3\%$  in total; better than PDG precision of 4%], BESIII, is hopefully submitted around April.

Update of  $D^+$  can be finished by the end of March.

Update of  $D_s$  will be finished by the end of April.

# New semi-leptonic $D_{(s)}$ results for HFLAV2021

1.  $D^+ \rightarrow \omega \mu^+ \nu$ , BESIII, PRD101, 072005(2020).
2.  $D^+ \rightarrow \eta \mu^+ \nu$ , BESIII, PRL124, 231801(2020).
3. Search for  $D^{0(+)} \rightarrow b_1 e^+ \nu$ , BESIII, PRD101, 072005(2020).
4. Observation of  $D^0 \rightarrow K_1^- e^+ \nu$ , BESIII, arXiv:2102.10850.
5.  $D^{0(+)} \rightarrow \bar{K} e^+ \nu$  with new method, BESIII, is hopefully submitted before April. Only BFs will be reported.
6.  $D^0 \rightarrow \rho^- \mu^+ \nu$ , BESIII, is hopefully submitted before April. Only BFs will be reported.
  - a. Only  $D \rightarrow \eta$  form factor needs to be weighted.
  - b. Some paragraphs need to be added for new results.

Updates with 1-4 can be finished by the end of March.

Updates with 5-6 will be finished in middle of April.