

Abstract Submitted  
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**Study of the Form Factors of the Decay  $B \rightarrow D l \nu_l$  in the Lattice Regime**

DANIEL SIMONS, The University of Iowa — I studied the decay rate of the particle decay  $B \rightarrow D l \nu_l$  using data collected from the Belle Collaboration. In order to analyze this decay rate, I used two different form factor parametrizations, CLN (Caprini, Lellouch, and Neubert) and BGL (Boyd, Grinstein, and Lebed). I was able to fit these form factors to the data collected by the Belle collaboration to determine the free parameters  $\mathcal{G}(\infty)$  and  $\rho^2$ . And the goal of my project was to fit these form factors in only lattice regime, taking only the data points where the recoil variable  $w < \sim 1.3$ , which corresponds to the lower energy portion of the full data set. The purpose of this is to determine how many data points I need to get a good fit for the free parameters, but few enough data points that I am still in the low energy regime.

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