

Abstract Submitted  
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**Measurements of  $q^2$  dependence of the  $D^0 \rightarrow K^- \mu^+ \nu$  and  $D^0 \rightarrow \pi^- \mu^+ \nu$  form factors** DORIS YANGSOO KIM<sup>1</sup>, University of Illinois, FOCUS/E831 COLLABORATION — Based on the  $D^0 \rightarrow K^- \mu^+ \nu$  and the  $D^0 \rightarrow \pi^- \mu^+ \nu$  samples obtained by the FOCUS photoproduction experiment at Fermilab, we measure the  $q^2$  dependence of the  $f_{K^+(q^2)}$  using both parametric and non-parametric methods and compare the results with the latest unquenched Lattice QCD calculations. We also fit the form factors to the pole dominance form and find a pole mass of  $1.93 \pm 0.05 \pm 0.03$  GeV for the  $D^0 \rightarrow K^- \mu^+ \nu$  and  $1.91_{-0.15}^{+0.30} \pm 0.07$  GeV for the  $D^0 \rightarrow \pi^- \mu^+ \nu$ .

<sup>1</sup>representing the FOCUS collaboration

Doris Yangsoo Kim  
University of Illinois

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