Contribution ID: **86** Type: **Parallel Talk**

Status of next-generation $\Lambda_b \to p, \Lambda, \Lambda_c$ form-factor calculations

Monday, 31 July 2023 16:20 (20 minutes)

I will present preliminary results of next-generation lattice-QCD calculations of the $\Lambda_b \to p$, $\Lambda_b \to \Lambda$, and $\Lambda_b \to \Lambda_c$ form factors based on RBC/UKQCD gauge-field ensembles with 2+1 flavors of domain-wall fermions. Compared to the work published in 2015 and 2016, the new calculations include three additional ensembles (one with 139 MeV pion mass, one with 0.73 fm lattice spacing, and one with another volume) and were performed with a more accurate tuning of the charm and bottom anisotropic clover action parameters. I will also discuss a novel approach for the kinematic extrapolations of the form factors with dispersive bounds.

Topical area

Quark and Lepton Flavor Physics

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