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## Study of the $D_s \to \phi \ell \nu_\ell$ semileptonic decay with (2+1)-flavor lattice QCD

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Semi-leptonic decays offer an ideal place to deeply understand hadronic transitions in the nonperturbative region of QCD and explore the weak and strong interactions in the charm sector. Combining with experimental data, the CKM matrix element can be extracted, and it helps to test unitarity of CKM matrix and searching for new physics beyond SM. In this talk, the full lattice QCD calculations of  $D_s \to \phi \ell \nu_\ell$  decay form factors will be presented using CLQCD ensembles.

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