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Study of the newly discovered mesons in the charm region with chiral fermions.

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We investigate if the newly discovered mesons in the charm region, such as D_s(2317), X(3872), Z^+(4430), are tetraquark mesoniums. With quarks and antiquarks in periodic and antiperiodic boundary conditions respectively in the spatial directions, we try to find out if the ground states from the tetraquark interpolation fields are one meson or two meson states. We use valence overlap fermions on 2+1 flavor domain wall fermion configurations. Z_4 grid sources are adopted to increase statistics.

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talk

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