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## The Roper resonance from spatially large interpolation fields

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We present our calculations of the Roper state obtained from a combination of spatially large interpolation fields. The calculation is carried out with overlap valence fermion on  $2 + 1$ -flavor domain-wall fermion configurations on the  $24^3 \times 64$  lattice with  $a^{-1} = 1.73$  GeV. Our result is consistent with that from the Sequential Bayesian method (SBM) on the same lattice, and with the experimental value at 1440 MeV. We utilize the same method on the anisotropic Clover lattice, and compare with the overlap results. In the end we give an explanation on the nature of the difference.

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