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Excited-Nucleon Spectroscopy with 2+1 Fermion Flavors HUEY-WEN LIN, University of Washington, HADRON SPECTRUM COLLABORATION — We present progress made by the Hadron Spectrum Collaboration (HSC) in determining the tower of excited nucleon states using 2+1-flavor anisotropic clover lattices[1]. HSC has been investigating interpolating operators projected into irreducible representations of the cubic group[2] in order to better calculate two-point correlators for nucleon spectroscopy; results are published for quenched[3] and 2-flavor anisotropic Wilson lattices[4]. In this work, we present the latest results using a new technique, distillation[5], which allows us to reach higher statistics than before. Future directions will be outlined at the end of the presentation.

[1] R. Edwards et al., Phys. Rev. D 78, 054501 (2008); H.-W. Lin et al., Phys. Rev. D 79, 034502 (2009).
[2] S. Basak et al., Phys. Rev. D72, 094506 (2005); Phys. Rev. D 72, 074501 (2005)
[3] S. Basak et al., Phys. Rev. D76, 074504 (2007).
[4] J. Bulava et al., Phys. Rev. D 79, 034505(2009).
[5] M. Peardon et al., 0905.3352[hep-lat].

Huey-Wen Lin
University of Washington

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