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**Extraction of the  $\rho$ -meson Decay Width from Lattice QCD** CRAIG PELISSIER, ANDREI ALEXANDRU, FRANK LEE, George Washington University — We extract the  $\rho$ -meson decay width from the scattering phaseshifts in the  $I = 1$  isospin channel. The phaseshifts are determined by extracting the low lying energy spectrum and using the formula proposed by Lüscher which relates the energies to the scattering phaseshifts. Simulations are done in the quenched approximation with the standard Wilson action and a pion mass of 330 MeV. The functional form of the phaseshifts is taken from  $\chi$ PT and fitted to extract the resonance mass and width.

Craig Pelissier  
George Washington University

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