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Parton Distribution Amplitudes

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We calculate the first two moments of the light-cone distribution amplitudes for the pseudoscalar mesons (π and K) and the longitudinally polarised vector mesons (ρ , K^* and ϕ) as part of the UKQCD and RBC collaborations' $N_f=2+1$ domain-wall fermion phenomenology programme. These quantities were obtained with a good precision and, in particular, the expected effects of $SU(3)$ -flavour symmetry breaking are observed. Operators are renormalised nonperturbatively and extrapolations to the physical point are made, guided by leading order chiral perturbation theory. The main results presented are for two volumes (16 and 24 cubed) with a common lattice spacing. Further to this, preliminary results for a lattice with a finer lattice spacing (32 cubed) will be discussed.

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Talk, Poster

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