Moments of pion distribution amplitude using OPE on the lattice

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We will show our calculation of the moments of pion distribution amplitude using a method proposed in Phys.Rev.D73:014501(2006) [hep-lat/0507007]. Since the method requires a fine lattice, it becomes practical only recently. The procedure is based on calculating the suitable, bilocal current-current products sandwiched between a pion state and vacuum on the lattice. Then the lattice calculations of these quantities can be matched with the formulae obtained by using Euclidean operator product expansion (OPE), to calculate moments.
Use of a fictitious, valance heavy quark facilitates the calculation in a number of ways. Our exploratory numerical result shows opportunities to overcome difficulties in operator mixing and renormalisation that the traditional method suffers from.

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