Lattice2010



Contribution ID: 121 Type: not specified

Glueball masses with exponentially improved statistical precision

Tuesday, 15 June 2010 15:10 (20 minutes)

We briefly review the computational strategy we have recently introduced for computing glueball masses and matrix elements, which achieves an exponential reduction of statistical errors compared to standard techniques. The global symmetries of the theory play a crucial role in the approach. We show how our previous work on parity can be generalized to other symmetries.

In particular we discuss how to extract the mass of the 0++, 2++ and 0-+ lightest glueballs avoiding the exponential degradation of the signal to noise ratio. We present new numerical results and update the published ones.

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talk

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Track Classification: Theoretical developments