中央大學物理學系

Department of Physics, National Central University

Colloquium

The inverse-problem approach to nonperturbative physics

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Abstract

We introduce a new analytical nonperturbative formalism, in which a dispersion relation obeyed by a physical observable is treated as an inverse problem. Given the perturbative behavior of the observable in the deep Euclidean region as inputs, we solve for nonperturbative resonance properties at low energy directly from the dispersion relation. This talk could be easily understood with some background of complex variables. We demonstrate the power of this approach by presenting the results for the rho meson and glueball masses.