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Application of AdS/CFT potential on the meson mass using two-body Dirac equations

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Indirect evidence of the quark gluon plasma state is found continuingly. As equations of state for relativistic matters are related to the energy density and temperature, research is needed for dissociation temperature of the meson. A basic stage research for obtaining insight into the dissociation of masons using the AdS/CFT potential that depends on the finite temperature is in progress. AdS/CFT potential and QCD-type potential are applied to the Schr"odinger-like equations obtained from the relativistic two-body Dirac equations for generalized mass-shell constraint with two free spin-half particles. When compare two potentials, AdS/CFT potential have one less parameters and work out closer value of quark masses. So I confirm availability of AdS/CFT potential as tools for obtaining information about the dissociation temperature of meson.

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