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Temperature dependence of ρ meson-nucleon coupling constant from the AdS/QCD soft-wall model

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We investigate the dependence of the ρ meson-nucleon coupling constant on the temperature of the medium using the soft-wall model of AdS/QCD. The finite temperature profile functions for the vector and fermion fields are applied to the model having a thermal dilaton field. The interaction Lagrangian in the bulk between these fields is written as in the zero temperature case and includes minimal- and magnetictype interactions. The temperature dependence of the gρNNδTÞ coupling constant and its terms are plotted. We observe that the coupling constant and its separate terms become zero at the medium temperature near the Hawking temperature of the phase transition.

Biography

It will be completed PhD in april 2022 years in azerbaijan National National Academy of Sciences, Institute of Physics. Narmin Nasibova is junior researcher in High Energy and Nuclear Physics laborotory, in the Institute of Physics. Narmin Nasibova has published 20 more papers in diferent journals which 10 of them has published International journals.