

THE DEUTERON CHARGE RADIUS R_C IN THE FRAMEWORK OF THE HARD-WALL ADS/QCD MODEL

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We study deuteron charge radius in the framework a hard-wall AdS/QCD model. We present basic elements of the hard-wall model, write metric for the AdS space. We introduce a vector field with twist $\tau = 6$ describing deuteron in the bulk of AdS space and other vector field to describe photon respectively, write an effective action for the bulk fields interactions, find a $G_1(Q^2)$, $G_2(Q^2)$ and $G_3(Q^2)$ form factors, then quadrupole $G_Q(Q^2)$ and charge $G_C(Q^2)$ form-factors of a deuteron. Thus, from the charge $G_C(Q^2)$ form-factor we find the deuteron charge radius R_C in the framework of a hard-wall AdS/QCD model. Then we compare our result with the results soft-wall model and experimental data.

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