# Power-law entropy-corrected HDE and NADE in Brans-Dicke cosmology

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Considering the power-law corrections to the black hole entropy, which appear in dealing with the entanglement of quantum fields inside and outside the horizon, the holographic energy density is modified accordingly. In this paper we study the power-law entropy-corrected holographic dark energy in the framework of Brans-Dicke theory. We investigate the cosmological implications of this model in detail. We also perform the study for the new agegraphic dark energy model and calculate some relevant cosmological parameters and their evolution. {As a result we find that this model can provide the present cosmic acceleration and even the equation of state parameter of this model can cross the phantom line $w_D=-1$ provided the model parameters are chosen suitably}.

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