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Dynamical mean-field theory of the Hubbard-Holstein model at half-filling: electron-phonon interaction effects on the finite temperature Mott transition JAE HYUN YUN, HAN-YONG CHOI, GUN-SANG JEON, HYUN C. LEE, TAE-HO PARK — We study the Hubbard-Holstein (HH) model which indludes both the electron-electron and electron-phonon interactins characterized by U and g, respectively, by empolying the dynamical mean-field theory in combination with Wilson's numerical renormalization group technique. We fix $g = 0.1W$ (W=bandwidth of the conduction electrons) and calculate the finite temperature phase diagram of metal-insulator transition in the $U - T$ plane. We will discuss in particular how the critical U values, U_{c1} and U_{c2} , and the critical temperature T_c of the Mott transition are changed by the electron-phonon interaction.

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