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**TAI HA,**

*Depth and regularity modulo a hypersurface*

We shall discuss the relationship between the depth and Castelnuovo-Mumford regularity of a homogeneous ideal  $I$  and those of  $(I, f)$  and  $(I : f)$ , where  $f$  is a linear form or a monomial. We shall also give a number of interesting applications when  $I$  is the edge ideal of a hypergraph or a power of a given homogeneous ideal.