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Constanze Liaw* (conni@math.tamu.edu), Mailstop 3368, College Station, TX 77845-3668, and
Ronald G. Douglas. *Rank one unitary perturbations via the theory of dilations.*

We study the spectral properties of rank one unitary perturbations in terms of the properties of a naturally associated model space which consist of certain analytic functions. We embed results by A. G. Poltoratski and M. S. Livsic into the framework of dilations and use it to prove new statements. (Received September 19, 2011)