

SPECTRAL CONCENTRATION ESTIMATES FOR  
SCHRÖDINGER OPERATORS ON TREES

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Let  $H = \Delta + \kappa q$  be the Anderson model on the  $d$ -regular tree, where  $\Delta$  is the adjacency matrix,  $q$  is an iid random potential and  $\kappa \geq 0$  is a coupling constant. Furthermore, let  $(X_n)_n$  be a typical sequence of  $d$ -regular graphs of size  $|X_n| \rightarrow \infty$  and  $\Delta_n$  the corresponding sequence of adjacency matrices on  $X_n$ . Let  $H_n = \Delta_n + \kappa_n q$  be the Anderson model on  $X_n$ . We prove that the density of states measure (dos) of  $H_n$  converges to the dos of  $H$ . This extends a classical result of McKay to  $\kappa > 0$ . If  $\kappa = 0$  we extend McKay's result and prove some rate of convergence, or spectral concentration estimates.