Spectral Theory and Applications

On large eigenvalues of Jacobi matrices of Jaynes-Cummings type

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The Jaynes-Cummings model describes the interaction between a single two-level atomic system and a quantized radiation mode. The mathematical version of this model is given by a Jacobi matrix with discrete spectrum. We determine the large n asymptotics of its nth eigenvalue in a form that allows us to recover the parameters of the model. (Joint work with Lech Zielinski.)
