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Title : A forward–backward random process for the spectrum of 1D Anderson operators

Abstract : We give a new expression for the law of the eigenvalues of the discrete Anderson model on the finite interval  $[0, N]$ , in terms of two random processes starting at both ends of the interval. Using this formula, we deduce that the tail of the eigenvectors behaves approximately like exponential of a Brownian motion with a drift. A similar result has recently been shown by B. Rifkind and B. Virag in the critical case, that is, when the random potential is multiplied by a factor  $1/\sqrt{N}$