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SPECTRAL MEASURES OF JACOBI OPERATORS WITH RANDOM POTENTIALS

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Abstract. Let H_ω be a self-adjoint Jacobi operator with a potential sequence $\{\omega(n)\}_n$ of independently distributed random variables with continuous probability distributions and let μ_ϕ^ω be the corresponding spectral measure generated by H_ω and the vector ϕ. We consider sets $\mathscr{A}(\omega)$ which depend on ω, but are independent of two consecutive given entries of the secuence ω, and prove that $\mu_\phi^\omega(\mathscr{A}(\omega)) = 0$ for almost every ω. This result is applied to show equivalence relations between spectral measures for random Jacobi matrices and to study the interplay of the eigenvalues of these matrices and their submatrices.

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