Operator Theory and Analytic Function Spaces

Bloch functions and asymptotic tail variance

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We introduce a new concept, the tail variance, associated with a Gauss-like distribution. We apply this in a setting of Bloch functions, and obtain a sharp exponential square integrability result which resembles Beurling's theorem as well as the John-Nirenberg theorem. The theorem is applied to give a strong universal estimate for the quasiconformal integral mean spectrum $B(k,t)$.