MOLLIFICATION OF EXPONENTIAL WEIGHTS AND ITS APPLICATION TO MARKOV-BERNSTEIN INEQUALITY

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Abstract

For an exponential-type weight $w = \exp(-Q)$ on the real line, we construct a relevant weight w^* such that $\sqrt{T}\, w \sim w^*$, where $T(x) = xQ'(x)/Q(x)$. Using this weight, we give a version of the Markov-Bernstein inequality.