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Non-vanishing of automorphic L -functions in the weight aspect

In this talk, we show that the percentage of primitive cusp forms of level one and weight $4k \rightarrow \infty$, $k \in \mathbf{N}$ for which the associated L -function at the central point is no less than $(\log k)^{-2}$ is at least 20% for an individual weight and at least 50% on average. The key ingredients of our proof are the Kuznetsov convolution formula and the Liouville-Green method. This is a joint work with Dmitry Frolenkov.