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On the Ramanujan conjecture over function fields

With Nicolas Templier, we have an approach to proving the Ramanujan conjecture over function fields, different from that used by Drinfeld and L. Lafforgue to handle the case of $\text{GL}_n$. We can prove the conjecture under two conditions (one local condition and one assumption about cyclic base change). Rather than studying individual automorphic forms and their Langlands parameters, our approach is based on estimating the trace of the Hecke operator on a whole family of automorphic forms at once.