A SATO-TATE LAW FOR $GL(3)$

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ABSTRACT. We consider statistical properties of Hecke eigenvalues $A_j(p, 1)$ for fixed p as ϕ_j runs through a basis of Hecke-Maaß cusp forms for the group $SL_3(\mathbb{Z})$. We show that almost all of them satisfy the Ramanujan conjecture at p and that their distribution is governed by the Sato-Tate law.

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