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**A Characterization of Shintani Lift
Over Finite Fields in Terms of Bessel Functions**

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Let K/F be a quadratic extension of finite fields. The Shintani lift is a bijection between irreducible representations of $GL(n, F)$ and conjugation invariant irreducible representations of $GL(n, K)$. We discuss a conjectural characterization of the Shintani lift in terms of an equality of Bessel functions. We provide computational evidence for this characterization in the case $|F| = 2$ in ranks 2 and 3.