

Distribution of Gaussian Hypergeometric Functions over Finite Fields

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In the 1980's, Greene introduced hypergeometric functions over finite fields using Jacobi sums. The framework of his theory establishes that these functions possess many properties that are analogous to those of the classical hypergeometric series studied by Euler, Gauss and Kummer. In this talk we discuss the value distribution (over large finite fields) of a certain "simple" family of Greene's hypergeometric functions which we denote by ${}_3F_2(x)_q$. We show that the distribution for this family is Batman. This is a joint work with Ken Ono and Hasan Saad.