

**${}_4F_3$ -GAUSSIAN HYPERGEOMETRIC SERIES AND  
TRACES OF THE FROBENIUS ENDOMORPHISMS  
FOR ELLIPTIC CURVES**

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ABSTRACT. In this talk, I will discuss the summation formula satisfied by the  ${}_4F_3$ -Gaussian hypergeometric series. As an application, I will express the special values of  ${}_4F_3$ -Gaussian hypergeometric series in terms of traces of the Frobenius endomorphisms of certain families of elliptic curves.

This is joint work with Dr. Jaban Meher.