

## **Abstract**

The hull of a linear code over finite fields, the intersection of the code and its dual, has been of interest and extensively studied due to its wide applications. In this talk, we use general Gaussian sums to construct linear codes with one-dimensional hull by utilizing number fields, which generalizes some previous results. Notably, some codes we obtained are optimal or almost optimal according to the Database. This is the first attempt on constructing linear codes by general Gaussian sums which have one-dimensional hull and are optimal. Moreover, we also develop a bound of on the minimum distances of linear codes we constructed.