Abstract

A linear code with the parameters of the form [n, k, n-k+1] is referred to be as an MDS (maximum distance separable) code, and a linear code with the parameters of the form [n, k, n-k] is said to be almost MDS (AMDS). A code is called near MDS (NMDS) if both the code and its dual are AMDS. In this talk, we give several constructions of NMDS codes obtained by extension of MDS codes. We also mention that the resultant NMDS codes are linearly inequivalent to the NMDS codes obtained from elliptic curves, and their weight distributions are completely determined.