Abstract

Self-orthogonal codes are a special subclass of linear codes and have attracted much attention, as these codes have very important applications in many areas including quantum codes, designs and linear complementary dual (LCD for short) codes. It is known that some linear codes with good parameters can be generated by some special functions. The objective of this talk is to discuss self-orthogonal codes from some special functions and determine their parameters. Some ternary self-orthogonal codes were obtained by using perfect nonlinear functions and their parameters were also determined. The parameters of these ternary self-orthogonal codes are flexible. Furthermore, the results show that these obtained self-orthogonal codes are minimal and have a few nonzero weights with at most five.