

1122-05-198

Yuqing Chen* (yuqing.chen@wright.edu), 3640 Colonoel Glenn Hwy., Dayton, OH 45435. *A quadratic perfect non-linear function for many abelian 2-groups.* Preliminary report.

In this talk we present a quadratic function over a finite field of even characteristic which is perfect non-linear for all abelian 2-groups of a fixed order and of exponent no larger than 4. We will also discuss its connections with certain distance regular graphs and strongly regular graphs. (Received August 13, 2016)