

1096-11-827

Ognian Trifonov* (trifonov@math.sc.edu), Mathematics Department, University of South Carolina, Columbia, SC 29208. *Estimates for the number of lattice points close to a curve and applications.*

We prove new estimates for the number of lattice points close to a curve and use them to improve on a result of Luca and Shparlinski on the number of certain extremal finite fields, and to obtain formulas for the number of representations of integers as a difference of k -free number and a small prime. (Received September 10, 2013)