1082-11-85   **John B Friedlander*** (`frdlndr@math.toronto.edu`), Dept. of Mathematics, University of Toronto, 40 St. George Street, Toronto, Ontario M5S 2E4, Canada. *Semi-Linear Sieve, Ternary Quadratic Forms and the Enumeration of Certain Varieties.*

In joint work with Igor Shparlinski we consider the problem of counting the number of representations of a large positive integer as the sum of a square and an integer all of whose prime factors are from a set of primes of density one half.

We confine ourselves to the special case which motivated our work by having an application to the enumeration of certain varieties over a finite field. (Received June 27, 2012)