1016-11-268A V Kumchev* (akumchev@towson.edu), Department of Mathematics, Towson University,
Towson, MD 21252. Exceptional sets in short intervals. Preliminary report.

In additive number theory, one often studies additive representations of a particular type by means of bounds for the number of integers that are not thus representable. One such problem that has attracted a great deal of attention deals with the number of exceptional integers in a short interval. In this talk, I will review several such results concerning exceptional sets in additive problems with prime variables. Then I will discuss possible improvements related to recent progress in applications of the Hardy-Littlewood circle method to the Waring-Goldbach and related problems. (Received February 14, 2006)