

1096-11-1107      **Ping Ngai Chung\*** (briancpn@mit.edu), 305 Memorial Drive, Cambridge, MA 02139, and  
**Shiyu Li.** *Bounded gaps between products of special primes.* Preliminary report.

In their breakthrough paper in 2006, Goldston, Graham, Pintz, and Yıldırım proved several results about bounded gaps between products of two distinct primes. Frank Thorne expanded on this result, proving bounded gaps in the set of square-free numbers with  $r$  prime factors for any  $r \geq 2$ , all of which are in a given set of primes. His results yield applications to divisibility of class numbers and triviality of ranks of elliptic curves. In this paper, we relax the condition on the number of prime factors and prove an analogous result using a modified approach. We then revisit Thorne's applications and give a better bound in each case. (Received September 12, 2013)