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**Mariah Hamel\*** (mhamel@math.uga.edu), Department of Mathematics, University of Georgia, Athens, GA 30602, and **Karsten Chipeniuk**. *Sums of sets of primes with positive relative density.*

We will show that if  $A$  is a subset of the primes with positive relative density, then  $A + A$  must have comparable positive density in  $\mathbb{Z}$ . Our proof combines Fourier analytic techniques of Green and Green-Tao with a combinatorial result on sumsets of subsets of the multiplicative group of integers modulo  $m$ . (Received September 15, 2009)