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)