Andrew Granville* (and.granville@gmail.com), Dept Math, CP 6128 Succursale Centre-Ville, Montréal, Quebec H3C 3J7, Canada, and Allysa Lumley (allysalumley@gmail.com). The distribution of primes in short intervals. Preliminary report.

What is the maximum number of primes in an interval of length $y$? Here we are thinking of $y \ll (\log x)^2$, that is, $y$ is not too big. We will present several conjectures (for different ranges of $y$) based on (a couple of) heuristic ideas, and investigate these conjectures with data from calculations of primes. There are one or two surprising issues that arise. (Received July 31, 2020)