Jeff Achter\* (achter@math.colostate.edu), Department of Mathematics, Fort Collins, CO 80523-1874, and Julia Gordon. Local heuristics and exact formulas for elliptic curves over finite fields. Preliminary report.

An isogeny class of elliptic curves over a finite field is determined by a quadratic Weil polynomial. Gekeler has given a beautiful product formula, purely in terms of congruence considerations involving that polynomial, for the size of such an isogeny class; an equidistribution hypothesis too strong to be true apparently calculates this cardinality. I will give a new explanation for this phenomenon. (Received July 28, 2014)