

1145-11-2655

Craig S Franze* (franze.3@osu.edu) and **Pin Hung Kao**. *Products of polynomials at prime arguments*. Preliminary report.

We adopt A. J. Irving's double-sieve method to study the almost-prime values produced by products of irreducible polynomials evaluated at prime arguments. This generalizes the previous results of Irving and Kao, who separately examined the almost-prime values of a single irreducible polynomial evaluated at prime arguments. We also show that the double-sieve method, combined with the estimates involving the upper and lower sifting functions, improve upon the results cited in Diamond–Halberstam for both small and large values of g , where g is the number of irreducible components of the polynomial in question. (Received September 25, 2018)