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Greatest Common Divisors on the Complement of Numerically Parallel Divisors

We prove inequalities involving greatest common divisors of functions at integral points with respect to numerically parallel divisors, generalizing a result of Wang and Yasufuku (after work of Bugeaud-Corvaja-Zannier, Corvaja-Zannier, and Levin). After applying a result of Vojta on integral points on subvarieties of semiabelian varieties, we use geometry and the theory of heights to reduce to the (known) case of \mathbb{G}_m^n . In addition to proving results in a broader context than previously considered, we also study the exceptional set in this setting, for both the counting function and the proximity function. This is a joint work with Aaron Levin.