1145-11-523 **Kamal Khuri-Makdisi***, Mathematics Department, American University of Beirut, Beirut, Lebanon. *Jacobian group operations for typical divisors on curves.*

Consider the question of efficiently implementing Jacobian group arithmetic for a curve C of genus g, over a finite field K with very large cardinality $q = |K| \gg g$. Many algorithms to do this are formulated for the "typical" case, which holds for "most" divisors once q is very large; so one is in practice very unlikely to encounter a nontypical divisor. This talk presents an explicit characterization of typical divisors for an arbitrary genus g curve with a rational point, with a precise bound on how unlikely a nontypical divisor is over a finite field. The main result is algorithms which succeed if and only if the input is typical, and which therefore provide a certificate that the input was typical in case of success. (Received September 08, 2018)