Some results on counting roots of polynomials and the Sylvester resultant.

Michael Monagan[*1] and Baris Tuncer[*1]

[1]Department of Mathematics [Burnaby] – 8888 University DriveBurnaby, British Columbia V5A 1S6, Canada

Abstract

We present two results, the first on the distribution of the roots of a polynomial over the ring of integers modulo n and the second on the distribution of the roots of the Sylvester resultant of two multivariate polynomials. The second result has application to polynomial GCD computation and solving polynomial diophantine equations.

[*]Speaker