

Gavril Farkas: The Green-Lazarsfeld secant conjecture

Generalizing the well-known Green Conjecture on syzygies of canonical curves, Green and Lazarsfeld formulated in 1986 the Secant Conjecture predicting that a line bundle L of sufficiently high degree on a curve has a non-linear p -syzygy if and only if L fails to be $(p+1)$ -very ample. I will discuss a solution to this conjecture (in various degrees of generality), including a complete affirmative answer in the extremal case. This is joint work with Michael Kemeny.