Queen's Algebraic Geometry
— Seminar —

Polarization and Separating Invariants

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Abstract

Polarization is a classical technique to extend the domain of a polynomial function from one vector space to certain larger vector spaces. For invariant theorists, the importance of polarization is that the polarization of an invariant polynomial is again invariant. Earlier this term Gregor Kemper discussed the concept of separating invariants in the seminar. Using examples, I will review the concepts of polarization and separating invariants. I will also introduce the new concept of "cheap polarization" and explain how it can be used to prove a surprising new strong version of Weyl's theorem for separating invariants of finite groups.

Monday, November 29, 2004
2:30pm – 3:30pm
422 Jeffery Hall