

Meeting: 999, Nashville, Tennessee, SS 8A, Special Session on Algebraic Geometry and Commutative Algebra

999-13-264 **Joseph P Brennan*** (Joseph.Brennan@ndsu.nodak.edu), Department of Mathematics, North Dakota State University, Fargo, ND 58105-5075, and **Robert M Fossum**, Department of Mathematics, University of Illinois at Urbana-Champaign, 1409 W. Green Street (MC-382), Urbana, IL 61801-2975. *Prolongation of additive invariants and the conjecture of McClintock*. Preliminary report.

The problem of prolongation of invariants of the additive group of a field is related to classical question of properties of transvectants and apolarity of binary forms. We will indicate how this issue can be used to investigate the problem of finiteness of the sagbi basis of additive invariants. (Received August 24, 2004)