

**UIC Model Theory Seminar, October 18, 2005**

**Differential algebra and generalizations of Grothendieck's  
conjecture on the arithmetic of linear differential equations**

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Influenced by work of Chatzidakis-Hrushovski and using results of Bost, we show that the Grothendieck-Katz conjecture is equivalent to a certain nonlinear generalization (introduced by Ekedahl et al) modulo a differential-algebraic statement concerning “nonorthogonality to the constants.”