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Michael F Singer* (singer@math.ncsu.edu), Department of Mathematics, Box 8205, North Carolina State University, Raleigh, NC 27695. *Linear Algebraic Groups as Parameterized Picard-Vessiot Galois Groups.*

I will discuss the inverse problem: which linear differential algebraic groups can occur as PPV-Galois groups over $k(x)$ where k is a differentially closed field with respect to some parametric derivations and $x' = 1$, $a' = 0$ for all a in k . I will show that a linear algebraic group (considered as a linear differential algebraic group) is a PPV-Galois group over this field if and only if its identity component has no one dimensional quotient as an algebraic group. (Received September 22, 2011)