1112-03-374 **James Freitag*** (freitagj@gmail.com), UCLA Mathematics Department, Box 951555, Los Angeles, CA 90095-1555, and **Rahim Moosa**. *Around Jouanolou-type Theorems.*

Around 20 years ago, Hrushovski built on a theorem of Jouanolou concerning hypersurface solutions to Pfaffian equations in order to prove that any differential variety with constant coefficients has either finitely many co-order one subvarieties or admits a nontrivial differential rational map to the constant field. Hrushovski's generaliation of Jouanolou's theorem allowed for a strong characterization of the possible algebraic relations between solutions of any order one ODE. In model theoretic terms, Hrushovski showed that any strongly minimal order one ODE is either nonorthogonal to the constants or has a trivial countably categorical forking geometry.

In this talk, I will explain several generalizations of Hrushovski's theorem. The first direction removes the assumption of constant coefficients, while the second generalizes the work to the case of several derivations. (Received August 09, 2015)