

1125-VC-2536 **David C. Carothers*** (carothdc@jmu.edu), Department of Mathematics and Statistics, James Madison University, Harrisonburg, VA 22807. *Polynomial systems of differential equations and functions with removable singularities*. Preliminary report.

We examine the relationship between a class of analytic functions characterized by the singularity of polynomial ODEs for which they are a solution (Flanders, *Functions not satisfying implicit, polynomial ODE*, J. Differential Equations **240**) and first order systems of polynomial differential equations as studied by Parker, Sochacki, et. al. (e.g. Sochacki, *Polynomial ODEs - Examples, Solutions, Properties*, Neural, Parallel & Scientific Computations **18**). (Received September 20, 2016)