1067-34-1932 **Roger Thelwell*** (thelwerj@jmu.edu), Dept. of Math and Stats, MSC 1911, James Madison University, Harrisonburg, VA 22807, and **Paul Warne**. *Cauchy-Kowalevski and Polynomial ODE.*

The Cauchy-Kowalevski Theorem is the main local existence and uniqueness theorem for analytic quasilinear partial differential equations (PDE) with Cauchy initial data. It began, however, as a statement about ordinary differential equations (ODE). We trace the tangled history of this idea, recover a clear *a priori* error bound, and apply the methods to the numerical solution of quasilinear ode. (Received September 22, 2010)