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Alejandro Sarria and **Ralph Saxton*** (rsaxton@uno.edu). *Blow Up of Solutions to the Generalized Proudman Johnson Equation*. Preliminary report.

The inviscid Proudman Johnson equation provides a simple class of exact solutions for the incompressible, two-dimensional Euler equations and can be extended to allow similar classes of solutions to be constructed for higher dimensions. Further generalization leads to a rich variety in the evolution of solutions. In this talk, we will discuss background and new findings for the problem. (Received September 22, 2011)