1086-14-1313   **Joshua T. Wood*** (`wood7991@gmail.com`). *Krichever Dynamics on a Ruled Surface.* Preliminary report.

The (1 dimensional) Krichever construction takes as inputs a curve, a point on the curve, a line bundle trivialized at the point, and some additional data. Out of this data one gets solutions of nonlinear pde's (such as the KdV equation) in one space variable by flowing linearly in the Jacobian. Rothstein generalized this construction to higher dimensional varieties, and proved an analogous existence theorem for (matrix valued) pde's in several space variables. I will discuss current work and results from specializing to the case where the variety is a ruled surface. (Received September 21, 2012)