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Laura DeMarco and **Suzanne Lynch Hruska*** (shruska@msm.umr.edu), University of Wisconsin Milwaukee, Department of Mathematical Sciences, PO Box 413, Milwaukee, WI 53211.
Axiom A Polynomial Skew Products of \mathbf{C}^2 . Preliminary report.

A polynomial skew product of \mathbf{C}^2 is a map of the form $f(z, w) = (p(z), q(z, w))$, where p and q are polynomial maps of \mathbf{C} of the same degree $d \geq 2$. If Ω denotes the nonwandering set of f , then f is Axiom A if periodic points are dense in Ω , and Ω is a hyperbolic set for f . In this talk, we will provide some restrictions on the topology of Ω , and on the dynamics for certain Axiom A polynomial skew products, and describe some examples of Axiom A polynomial skew products with interesting behavior. (Received January 01, 2007)