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Emmanouil Drymonis* (edrymoni@providence.edu), Department of Mathematics and Computer Sc., Providence College, Providence, RI 02918. *Some Facts and Some Open Problems and Conjectures on Rational Systems*. Preliminary report.

This talk is about the dynamics of rational systems of difference equations. We present some facts and some open problems and conjectures on rational systems. We are primarily interested in the boundedness nature of solutions, the periodic character of the equation, the global stability behavior of the equilibrium points, in invariants, and in convergence to periodic solutions including periodic trichotomies. We believe that the rational systems that we study are genuine examples which provide prototypes for the development of the basic theory of nonlinear difference equations. (Received September 12, 2014)