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Chris D Lynd* (chris@math.uri.edu), RI. *Undergraduate Research Opportunities in Systems of Difference Equations.*

Systems of difference equations are frequently used in mathematical biology and computer science. In mathematics, Difference Equations is a relatively new area and is rich with open problems.

We will present a couple of open problems and give examples of how undergraduates can contribute to research in the area of systems of difference equations. With very little background, students can analyze the solutions of a system of difference equations by running computer simulations, discovering patterns, and making conjectures about the behavior of the solutions. With a background in real analysis and dynamical systems, students can prove some of those conjectures. (Received September 10, 2012)