

1125-VW-271 **Chris D. Lynd*** (clynd@bloomu.edu), 229 Ben Franklin Building, 400 E. 2nd St, Bloomsburg,
PA 17815. *Undergraduate Research Projects in Discrete Dynamical Systems*.

There are many open problems in this area of mathematics that are accessible to undergraduate students. This talk will focus on the behavior of sequences that are generated by recurrence relations.

We will present an undergraduate project that led to a paper on left nested radicals that was recently accepted for publication in *Mathematics Magazine*. We will also present some open problems and give examples of how undergraduates can contribute to research in this area.

With little mathematical background, students can analyze the sequences generated by a recurrence relation by performing computer simulations, discovering patterns, and making conjectures about the behavior of the sequences. With a background in real analysis and dynamical systems, students can prove some of their conjectures. (Received August 22, 2016)