NUMBER THEORY SEMINAR

Growth Rates of Recurrence Sequences
with Periodic Coefficients

Karyn McLellan
Dalhousie University

<u>WHEN:</u> Wed 3 Mar 2010, 3:30 p.m.

<u>WHERE:</u> Chase 319

<u>ABSTRACT:</u>

This talk will extend some ideas from Viswanath's work on random Fibonacci sequences by looking at non-random cases. Specifically, I will look at second order linear recurrence sequences whose coefficients belong to the set 1, -1 and form periodic cycles. I will analyze the growth of such sequences and develop criteria for determining whether a given sequence is bounded, grows linearly or grows exponentially. Also, I will introduce an equivalence relation on the sequences such that each equivalence class has a common growth rate and consider the number of such classes for a given cycle length.

Any questions, please email: rnoble@mathstat.dal.ca.