AMAL AMLEH, Saint Mary's University, 923 Robie Street, Halifax, NS B3H 3C3 Very Interesting Nonlinear Difference Equations: An Overview

In this talk I will introduce several classes of nonlinear difference equations which possess certain properties. In particular, I will present nonlinear difference equations in which:

- periodicity destroys boundedness,
- they possess a trichotomy character,
- local asymptotic stability does not imply global attractivity,
- every solution is periodic, eventually periodic, or converges to a periodic solution.

Recent and new results on rational difference equations together with several open problems and conjectures will be given.