Kit-Ho Mak

Abstract

A classical Ducci sequence of integers is a sequence of n-tuples of integers obtained by iterating the map $(a_1, \ldots, a_n) \mapsto (|a_1 - a_2|, |a_2 - a_3|, \ldots, |a_n - a_1|)$. In this paper, we study a natural analogue of the Ducci sequences defined over function fields that are motivated by the number field-function field analogy. Results that are analogous to the classical case have been found, and differences between the two cases are also explored.