1135-00-187   **Ronald Mickens*** (`rmickens@cau.edu`). *Nonstandard Finite Difference Schemes: Impact, Importance, and Dynamical Consistency.*

Nonstandard finite difference (NSFD) schemes are an alternative methodology for constructing discretizations of differential equations for the purpose of calculating numerical solutions. The genesis of this technique arose from earlier attempts to formulate for classical mechanics a structure based on discrete time rather the assumption of a continuous time independent variable. In this talk, we will discuss the impact of NSFD schemes in the research community as well as in the how they achieve dynamic consistency by incorporating specific features of a given system of differential equations. (Received September 05, 2017)