1163-65-380   **Ron Buckmire***, 1600 Campus Road, Los Angeles, CA 90041, and **Treena Basu**, 1600 Campus Road, Los Angeles, CA 90041. *Using Approximations of Unity in the Construction of Positivity-Preserving NSFD Schemes.*

We present examples of nonstandard finite difference (NSFD) schemes that preserve positivity while simultaneously exploiting various ways unity (i.e. the number "1") can be represented algebraically in these expressions. NSFD schemes (also known as "Mickens discretizations") use nonstandard numerical techniques to approximate derivatives and other features in ordinary and partial differential equations. These NSFD schemes can often be used to produce numerical solutions to differential equations that have particular desired properties like increased accuracy, preserving positivity, and maintaining boundedness. (Received September 04, 2020)