1033-34-17        **Samuel Nemsefor Jator\*** (`Jators@apsu.edu`), 601 College Street, Clarksville, TN 37043.
*Linear Multistep Methods for $y''' = f(x, y, y', y'')$.*

A family of linear multistep methods (LMMs) are considered and applied to solve third order initial value problems (IVPs). The methods are analyzed for accuracy and stability and implemented as block methods without the need for either predictors or starting values from other methods. Two specific methods for $k = 3$ and $k = 4$ are used to illustrate the process. Numerical examples are given to show the efficiency of the methods. (Received July 14, 2007)