1014-45-1079   **Eric R Kaufmann** (`erkaufmann@ualr.edu`), Department of Mathematics and Statistics, Little Rock, AR 72204-1099, and **Youssef N Raffoul*** (`youssef.raffoul@notes.udayton.edu`), Department of Mathematics, Dayton, OH 45469-2316. *Discretization Scheme In Volterra Integro-differential Equations That Preserves Stability and Boundedness.*

A nonstandard discretization scheme is applied to continuous Volterra integro-differential equations. We will show that under our discretization scheme the stability of the zero solution of the continuous dynamical system is preserved. Also, under the same discretization, using combination of Lyapunov functionals, Laplace transform and $z-$transform, we show that the boundedness of solutions of the continuous dynamical system is preserved.