1014-34-1627 **Gnana Bhaskar Tenali** (gtenali@fit.edu), Department of Mathematical Sciences, 150 West Unversity Blvd, Florida Institute of Technology, Melbourne, FL 32901, and **Sameer Kumar M.K.*** (kumars@fit.edu), Department of Mathematical Sciences, 150 West University Blvd, Florida Institute of Technology, Melbourne, FL 32901. *Asymptotic Behavior of Solutions of a Nonhomogenous Refinement Differential Equation.*

We discuss the asymptotic behavior of the solutions of the nonhomogenous first order refinement differential equation

$$x^{'}(t) + x(t) = 2x(\lambda t) + f(t)$$

where $f(t)$ is a continuous function on $[0, \infty)$ and $\lambda > 1$, is an integer. These equations are relevant to wavelet analysis and signal processing when $\lambda = 2$. (Received September 28, 2005)