Application of New Integral Transform Bayawa Transform for Solving Linear Volterra Integral Equations of the First and the Second Kinds

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Abstract: *In this paper, we utilize new integral transform namely Bayawa transform for solving linear Volterra integral equations of the first and the second kinds and determined the analytical solution. Linearity property and convolution theorem for the Bayawa transform has been proved. Bayawa transform gives a effortless powerful tool for obtaining the exact solution without a need too much time absorbing and without massive calculation work.*

Keywords: Linear Volterra integral equation, Bayawa transform, Linear functions, Convolution theorem, Inverse Bayawa transform