Neural Network for Solving Integro Partial Differential Equation

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Abstract— Study aims of this paper are to describe some other numerical techniques to solve the partial differential equations by designing a feed-forward neural network. This design Consist from one layer for input, output and hidden layer have five hidden units, using tanh (tansig) transfer function in each unit and levenberg-marquardt algorithms for training. Using this design to find approximation function connecting input and output unit. Moreover, demonstrate the accuracy and efficiency of the introduced technique some examples on partial integro_differential equations are solved and comparison the results of numerical experiment with the exact solutions.