Recurrent Neural Networks in Linear Systems Controlling

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Abstract. This paper presents an application of an ANN (Artificial Neural Network) of a RNRF type (Recurrent Network with Radial basis Function) in controlling a linear system. The performance of ANN-based control solution is compared with a classic controller and the results show that ANN behaves better than the classic controller. MATLAB simulation performed show that the coupling between the ANN and a proportional controller gives the best performance.