

This paper addresses the challenging problem of designing an adaptive feedback strategy for simultaneous identification and stabilization for a class of nonlinearly parameterized uncertain systems in discrete time. The Nonlinear Least Squares (NLS) algorithm is applied to estimate the unknown parameters, and it turns out to be the standard Least Squares (LS) algorithm whenever the model is linearly parameterized. Based on this algorithm, both the strong consistency of the estimator and the global stability of the system are achieved with the output feedback design for the scalar-parameter case.