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**Zuofeng Shang\*** ([tanya.m.klein@njit.edu](mailto:tanya.m.klein@njit.edu)), 323 Dr M.L.K. Jr. Blvd, Newark, NJ 07102.

*Nonparametric Classification using Deep Neural Networks.* Preliminary report.

We propose a classification rule based on deep neural network and investigate its asymptotic properties. Our method is based on optimization of a hinge loss function over a class of deep neural networks. Asymptotic bounds for classification risk are derived. Such bounds are adapted to the intrinsic dimension, rather than the original one, of the covariates which provides an explanation for the success of the proposed method. (Received August 16, 2019)