

EXTRINSIC GEOMETRICAL METHODS FOR NEURAL BLIND DECONVOLUTION

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Abstract

The present contribution proposes a Riemannian-gradient-based and a projection-based learning algorithms over a curved parameter space for single-neuron learning. We consider the ‘blind deconvolution’ signal processing problem using a single neuron model. The learning rule naturally arises as a via criterion-function minimization over the unitary hyper-sphere. We consider the blind deconvolution performances of the two algorithms as well as their computational burden and numerical features.