

# COMPARISON OF UNSUPERVISED PRE-TRAINING METHODS

Jifu Zhao

University of Illinois at Urbana-Champaign  
Department of Nuclear, Plasma, and Radiological Engineering  
Urbana, Illinois 61801, USA

## ABSTRACT

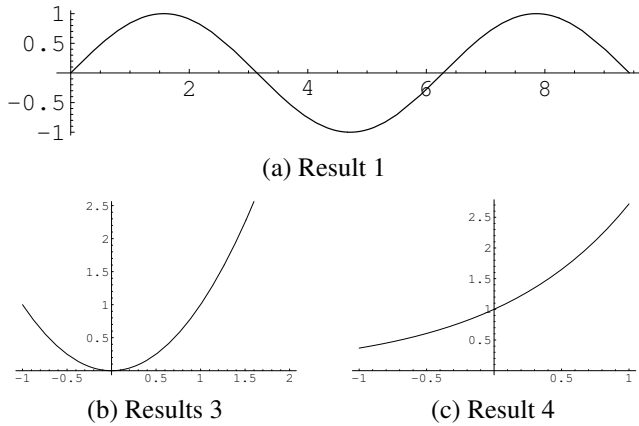
Unsupervised

**Index Terms**— Unsupervised pre-training, PCA, kernel PCA, Auto-encoder

## 3. REFERENCES

- [1] A.B. Smith, C.D. Jones, and E.F. Roberts, “Article title,” *Journal*, vol. 62, pp. 291–294, January 1920.
- [2] C.D. Jones, A.B. Smith, and E.F. Roberts, “Article title,” in *Proceedings Title*. IEEE, 2003, vol. II, pp. 803–806.

## 1. INTRODUCTION



**Fig. 1.** Example of placing a figure with experimental results.

## 2. RELATION TO PRIOR WORK

You should differentiate what is new and how your work expands on or takes a different path from the prior studies. An example might read something to the effect: “The work presented here has focused on the formulation of the ABC algorithm, which takes advantage of non-uniform time-frequency domain analysis of data. The work by Smith and Cohen [1] considers only fixed time-domain analysis and the work by Jones et al [2] takes a different approach based on fixed frequency partitioning. While the present study is related to recent approaches in time-frequency analysis [3-5], it capitalizes on a new feature space, which was not considered in these earlier studies.”