

1106-AE-2650 **Andrew Stevens***, Pacific Northwest National Laboratory, P.O. Box 999; K7-20, Richland, WA 99352. *Dictionary learning for automatic feature extraction in signature discovery.*

Dictionary learning is a relatively recent development in image analysis based on statistical factor analysis. An introduction to dictionary learning and some extensions will be presented along with how it fits into more recent developments like deep neural networks. The usefulness of dictionary learning for automated feature extraction will be shown by comparison to hand engineered features. Finally, some applications in signature discovery will be discussed. (Received September 16, 2014)