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**Radu Balan** (rvbalan@math.umd.edu), **Maneesh Singh** (maneesh.singh@verisk.com) and  
**Dongmian Zou\*** (zou@math.umd.edu). *Lipschitz Properties for Deep Convolutional Networks*.

In this talk we review robustness properties of deep convolutional networks. Convolutional neural networks are feature extractors widely used in machine learning. We discuss the use of families of nonlinear functions and their analytic properties. We start from the standard scattering network and then discuss more general networks. (Received September 13, 2016)