An introduction to compressed sensing and its applications in Networking research

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Compressed Sensing has emerged in the past decade as a fast growing topic in signal processing research. The main concept to compressed sensing is that one can retrieve a sparse signal from a limited number of non-coherent projections of it. In order to achieve this one has to get out of the rather classical framework of Least mean square estimation and forge intuition on the L1 norm. The aim of this talk is to show how this new approach can open new horizon in networking research. To illustrate the topic, I will use example from anomaly detection, network tomography and fast packet processing.