Compressive sensing

A major focus in signal processing is on developing low-dimensional models for the structure inherent in high-dimensional signals. Indeed, such models are key to reducing the burden of acquiring, processing, transmitting, and understanding signals in data-rich settings and improving the quality of information that can be extracted from signals in data-starved settings. An exciting byproduct of this work has been the emergence of a field known as Compressive Sensing (CS). CS is based on the revelation that certain high-dimensional signals obeying low-dimensional models can actually be recovered from small numbers of (possibly random) linear measurements.

In this tutorial, Prof. Wakin will provide a general introduction to CS, and survey some of its many potential variations and applications.

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