

Applications of compressive sensing in antenna arrays

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Compressive sensing (or compressed sensing) is a novel paradigm in data acquisition that allows representing sparse data in an efficient and accurate way, using sparse recovery techniques based on non linear interpolation. The promise is to overcome the common wisdom in data acquisition based on Nyquist-Shannon sampling theorem and to allow recovering certain signals from far fewer measurements than the traditional techniques that has a attracted considerable interest in many applications. Several problems arising in antenna arrays can be directly formulated or suitably recast for an effective solution within the compressive sensing framework. This work is aimed at giving an introduction to the compressive sensing theory and its applications in antenna arrays based on the recent publications of the speaker.