1138-42-260   **Cheng Cheng*** (`cheng87@math.duke.edu`) and **Qiyu Sun**. *Phaseless sampling and reconstruction of signals in shift-invariant spaces.*

In this talk, we consider that given the absolute values of function f which are sampled either on the Euclidean space or on a discrete set with finite sampling density, is it possible to recover the signal. We introduce an undirected graph to a signal and use connectivity of the graph to characterize whether the signal can be determined, up to a sign, from its magnitude measurements on the whole Euclidean space. We also propose a reconstruction algorithm which provides a suboptimal approximation to the original signal when its noisy phaseless samples are available only. (Received February 11, 2018)