Walton Green* (awgreen@clemson.edu). *Observability of Wave and Schrodinger Equations on \( \mathbb{R}^d \) via Uncertainty Principles. Preliminary report.

We present a few new observability inequalities for the wave equation and fractional Schrodinger equation on the entire space (\( \mathbb{R} \) or \( \mathbb{R}^d \)) which are consequences of two uncertainty principles for the Fourier transform: the classical Paneah-Logvinenko-Sereda Theorem and a more recent result by O. Kovrizhkin. We characterize the observable sets in one dimension and give a sufficient condition in higher dimensions. (Received January 29, 2019)