

1098-42-108

Marcin Bownik and **Darrin Speegle***, speegled@slu.edu. *Linear independence of time-frequency translates in \mathbb{R}^d of functions with decay.*

The HRT conjecture states that time-frequency translates of function in $L^2(\mathbb{R})$ are linearly independent. Previous work of the authors established that functions on \mathbb{R} with sufficiently good one-sided decay have linearly independent translates. In this talk, we review the known results, and establish the linear independence of time-frequency translates for functions f on \mathbb{R}^d having one sided decay $\lim_{x \in H, |x| \rightarrow \infty} |f(x)|e^{c|x| \log |x|} = 0$ for all $c > 0$, which do not vanish on a half-space $H \subset \mathbb{R}^d$. (Received January 17, 2014)