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Marcin Bownik and **Darrin Speegle*** (speegled@yahoo.com), 221 N Grand Blvd, St Louis, MO 63021. *The Feichtinger Conjecture for frames of translates.*

The Feichtinger Conjecture states that every bounded frame can be written as the finite union of Riesz sequences. In this talk, we consider functions $f \in L^2(\mathbb{R})$ such that $\{f(x+k) : k \in \mathbb{Z}\}$ is a frame for its closed linear span, and ask whether \mathbb{Z} can be partitioned into sets $\Lambda_1, \dots, \Lambda_N$ such that $\{f(x+k) : k \in \Lambda_i\}$ is a Riesz sequence for each $1 \leq i \leq N$. By known techniques, it can be shown that if the paving conjecture for Laurent operators is true, then the answer to the above question is “yes”. We show that there is a function f such that if $\{f(x+k) : k \in \Lambda\}$ is a Riesz sequence, then Λ must contain arbitrarily long arithmetic sequences of a certain type, improving on a result of Halpern, Kaftal and Weiss. The question as posed above remains open. (Received September 23, 2005)