

Linear combinations of frame generators in systems of translates

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A finitely generated shift invariant space V is a closed subspace of $L^2(\mathbb{R}^d)$ that is generated by the integer translates of a finite number of functions. A set of frame generators for V is a set of functions whose integer translates form a frame for V . In this talk I will give necessary and sufficient conditions in order that a minimal set of frame generators can be obtained by taking linear combinations of the given frame generators. I will also present a complete characterization in the case of Riesz basis and orthonormal basis of translates. The talk is based in a joint work with Carlos Cabrelli and Carolina Mosquera.