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Keaton Hamm* (keaton.hamm@vanderbilt.edu). *Approximation and Quasi Shift-Invariant Spaces.*

We will discuss the structure of subspaces of $L_p(\mathbb{R}^n)$ of the form $V_p(\phi, X) := \overline{\text{span}}^{L_p} \{\phi(\cdot - x_n)\}$, where $X := (x_n)$ is a quasi-uniform sequence in \mathbb{R}^n . Such subspaces are called quasi shift-invariant spaces after Gröchenig and Stöckler. In addition to structural considerations, some applications to function interpolation and sampling theory will be discussed. (Received July 17, 2017)