TWISTED SHIFT-INVARIANT SYSTEM IN $L^2(\mathbb{R}^{2n})$

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Abstract:

We consider a general twisted shift-invariant system, $V^t(A)$ on $\mathbb{R}^{2n}$, consisting of twisted translates of countably many generators and study the problem of obtaining a characterization for the system $V^t(A)$ to form a frame sequence or a Riesz sequence. We illustrate our theory with some examples. We also obtain an orthonormal sequence of twisted translates from a given Riesz sequence of twisted translates. This is a joint work with Santi Ranjan Das and Radha Ramakrishnan which is appeared in Nagoya Mathematical Journal (2023).