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$\mathcal{J}$-REGULARITY OF MULTIVARIATE STATIONARY SEQUENCES FOR SOME FAMILIES $\mathcal{J}$

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Abstract: Let $n \in \mathbb{N}$, S be a nonempty finite subset of the set of integers, S^{c} be its complement, and $\mathcal{J}$ be the family of translations of S^{c} by ln, $l \in \mathbb{Z}$. For such a family, $\mathcal{J}$-regularity of a q-variate stationary sequence over $\mathbb{Z}$ is studied. If S contains exactly n elements, a description of a $\mathcal{J}$-regular sequence in terms of its spectral density is obtained. Some examples are given for the case where S contains more than n elements.

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