Mathematics > Functional Analysis

Complex Equiangular Tight Frames and Erasures

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In this paper we demonstrate that there are distinct differences between real and complex equiangular tight frames (ETFs) with regards to erasures. For example, we prove that there exist arbitrarily large non-trivial complex equiangular tight frames which are robust against three erasures, and that such frames come from a unique class of complex ETFs. In addition, we extend certain results in \cite{BP} to complex vector spaces as well as show that other results regarding real ETFs are not valid for complex ETFs.

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