DUALITY AND STABILITY OF OPERATOR VALUED FRAMES FOR QUATERNIONIC HILBERT SPACES

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Abstract. This paper aims to prove some significant properties and relations between operator valued frames (OV-frames) in quaternionic Hilbert spaces. Various properties concerning the dual of an OV-frame are proved and the precise form of the family of duals of an OV-frame is given. Moreover, we try to construct OV-frames with the help of some partial isometries and finally, the stability of OV-frames under some perturbation conditions is established in quaternionic Hilbert spaces.

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