

ON THE EXTENDED HOLOMORPHIC CURVES ON C^* -ALGEBRAS

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Abstract. For $\Omega \subseteq \mathbb{C}$ a connected open set, and \mathcal{U} a unital C^* -algebra, let $\mathcal{P}(\mathcal{U})$ denote the sets of all projections in \mathcal{U} . If $P : \Omega \rightarrow \mathcal{P}(\mathcal{U})$ is a holomorphic \mathcal{U} -valued map, then P is called an extended holomorphic curve on $\mathcal{P}(\mathcal{U})$. In this note, we focus on discussing the unitary classification problem of extended holomorphic curves. By considering the metric of related determinant jet bundles, we give a necessary and sufficient condition for some extended holomorphic curves on C^* -algebras to be unitary equivalent.

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