

Title: Isometries on the Bloch Space in \mathbb{C}^n

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Abstract: Let φ be a holomorphic self-map of a bounded homogeneous domain D in \mathbb{C}^n . In this work, inspired by the characterization of the isometries among the composition operators on the Bloch space of unit disk, we expand the study to the setting of a bounded homogeneous domain D in \mathbb{C}^n . We give a sufficient condition for φ to induce an isometry on the Bloch space $\mathcal{B}(D)$ which allows us to construct non-trivial examples. For the case when D is a bounded symmetric domain, we use its Cartan representation as a product of irreducible domains (called Cartan domains) to obtain some necessary conditions for C_φ to be an isometry on $\mathcal{B}(D)$ and determine the composition isometries when D has the unit disk as a factor.