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Title:	Algebraic characterization of isometries of the complex and the quaternionic hyperbolic planes
Authors:	Gongopadhyay, Krishnendu (/jspui/browse?type=author&value=Gongopadhyay%2C+Krishnendu)
Keywords:	Classification of isometries Complex and quaternionic hyperbolic space z-class
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Citation:	Geometriae Dedicata, 157 (1), pp. 23-39
Abstract:	Let H^2_F denote the two dimensional hyperbolic space over F , where F is either the complex numbers \mathbb{C} or the quaternions \mathbb{H} . It is of interest to characterize algebraically the dynamical types of isometries of H^2_F . For $F = \mathbb{C}$, such a characterization is known from the work of Giraud-Goldman. In this paper, we offer an algebraic characterization of isometries of $H^2_{\mathbb{H}}$. Our result restricts to the case $F = \mathbb{C}$ and provides another characterization of the isometries of $H^2_{\mathbb{C}}$, which is different from the characterization due to Giraud-Goldman. Two elements in a group G are said to be in the same z -class if their centralizers are conjugate in G . The z -classes provide a finite partition of the isometry group. In this paper, we describe the centralizers of isometries of H^2_F and determine the z -classes.
Description:	Only IISERM authors are available in the record.
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