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Title:	Decomposition of complex hyperbolic isometries by involutions
Authors:	Gongopadhyay, Krishnendu (/jspui/browse?type=author&value=Gongopadhyay%2C+Krishnendu)
Keywords:	Complex hyperbolic space Unitary group Involutions Complex reflection
Issue Date:	2016
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Citation:	Linear Algebra and Its Applications,500, pp. 63-76.
Abstract:	A k-reflection of the n-dimensional complex hyperbolic space HnCis an element in U(n, 1) with negative type eigenvalue λ, |λ| =1, of multiplicity k+1 and positive type eigenvalue 1of multiplicity n −k. We prove that a holomorphic isometry of HnCis a product of at most four involutions and a complex k-reflection, k≤2. Along the way, we prove that every ele-ment in SU(n)is a product of four or five involutions according as n ≡2 mod 4 or n ≡2 mod 4. We also give a short proof of the well-known result that every holomorphic isometry of HnCis a product of two anti-holomorphic involutions.
Description:	Only IISERM authors are available in the order.
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