

Erratum to
“LOCAL HOLOMORPHIC ISOMETRIC EMBEDDINGS ARISING FROM
CORRESPONDENCES IN THE RANK-1 CASE”

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Theorem 1.1 in “*Local holomorphic isometric embeddings arising from correspondences in the rank-1 case*” (Mok [Mk]) was proven only for the case of $n \geq 2$. The corrected statement reads

Theorem 1.1 (Corrected). *For n a positive integer write $B_r^n = \{z \in \mathbb{C}^n, \|z\| < r\}$ for $r > 0$. Assume now $n \geq 2$. Let ε be a real number such that $0 < \varepsilon < 1$; p, q be positive integers; and $f : (B_\varepsilon^n, qds_{B_\varepsilon^n}^2) \rightarrow ((B^n)^p, ds_{(B^n)^p}^2)$ be a holomorphic isometric embedding. Writing $f = (f^1, \dots, f^p)$, assume that for each $k, 1 \leq k \leq p$, $f^k : B_\varepsilon^n \rightarrow B^n$ is of maximal rank at some point. Then, $q = p$ and f is the restriction to B_ε^n of a holomorphic totally-geodesic embedding $F : (B^n, pds_{B^n}^2) \rightarrow ((B^n)^p, ds_{(B^n)^p}^2)$.*

Here for a bounded domain $\Omega \Subset \mathbb{C}^n$ we denote by ds_Ω^2 the Bergman metric on Ω . For the case of $n = 1$ we referred in [Mk] to a preprint of Clozel-Ullmo. In the published version [CL] of the article of Clozel-Ullmo, there is no Théorème 2.2. In its place, the analogous statement for [Mk, Theorem 1.1] in the case of $n = 1$ was only stated in [CL] as Conjecture 2.2, and only the special case of Conjecture 2.2 for local holomorphic isometries arising from commutators of modular correspondences ([CL, 2.2.1-2.2.3]) was established there. The author has recently found counter-examples to Conjecture 2.2 of [CL].

References

- [CL] L. Clozel and E. Ullmo, Correspondances modulaires et mesures invariantes, *J. Reine Angew. Math.* **558** (2003), 47-81.
- [Mk] Local holomorphic isometric embeddings arising from correspondences in the rank-1 case, *in Contemporary Trends in Algebraic Geometry and Algebraic Topology*, ed. S.-S. Chern, L. Fu and R. Hain, Nankai Tracts in Mathematics, Vol.5, World Scientific, New Jersey 2002, pp.155-165.