

ERRATA TO "HYPERSURFACES WITH CONSTANT MEAN CURVATURE IN THE COMPLEX HYPERBOLIC SPACE"

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Unfortunately, there is a mistake in the proof of Theorem 3.3 of our paper entitled *Hypersurfaces with constant mean curvature in the complex space* which appeared in the Transactions of the AMS (Vol. 339 (1993), 685–702).

In the proof of this theorem we applied Hopf's maximum principle, which holds for a class of hypersurfaces satisfying an elliptic PDE, to a one-parameter family of hypersurfaces with constant mean curvature (cmc) of Q^5 (using the notations of the paper) obtained by reflecting an initial cmc hypersurface of Q^5 on a one-parameter family of totally geodesic hypersurfaces of Q^5 . However, while we know that the initial hypersurface satisfies an elliptic PDE since it is invariant by the S^1 group of isometries of Q^5 and has cmc, the reflections of the hypersurface do not satisfy the equation since, although they have cmc, they are not S^1 invariant any more. Therefore, Hopf's maximum principle cannot be used and the proof, as it stands in the paper, is not correct.

This mistake was pointed out to us by Professor J. Eschenburg. So far, we have not found a way to correct it and, in fact, this seems to be a difficult question.

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