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Ara Basmajian and **Bernard Maskit*** (bernie@math.sunysb.edu). *Linking hyperbolic isometries through involutions.*

Two orientation-preserving isometries, A and B , of hyperbolic n -space are *linked* if there are three involutions, α , β and γ , so that $A = \alpha\beta$ and $B = \beta\gamma$. It is well known that for $n = 2, 3$, every pair of non-elementary isometries is linked. If $n = 2$, the involutions reverse orientation, while if $n = 3$, they preserve orientation. For $n \geq 4$, we show that the generic pair of isometries cannot be linked. The proof involves the geometry of pairs and triples of 2-dimensional subspaces in \mathbb{R}^n , $n \geq 4$. (Received July 24, 2010)