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Youngju Kim* (ykim@gc.cuny.edu), 365 Fifth Ave, Mathematics, The Graduate Center, New York, NY 10016. *Rigidity and stability for isometry groups in hyperbolic 4-space.*

It is known that a geometrically finite Kleinian group is quasiconformally stable. We prove that this quasiconformal stability cannot be generalized in 4-dimensional hyperbolic space. This is due to the presence of screw parabolic isometries in dimension 4. We also prove that a Fuchsian thrice-punctured sphere group has a large deformation space in hyperbolic 4-space which is in contrast to lower dimensions where the Fuchsian thrice-punctured sphere group has a trivial deformation space. However, the thrice-punctured sphere group is still quasiconformally rigid. (Received August 16, 2008)