1035-54-1605   **Mozhgan Mirani*** (`momirani@sewanee.edu`), Department of Mathematics, The University of the South, 735 University Ave., Sewanee, TN 37383. **Quasi-conformal Homeomorphisms on Compact Ultrametric Spaces**.

Quasi-Conformal homeomorphisms on metric spaces have not been extensively studied. We will see through examples that even in very special cases where $\phi : X \to Y$ and $\psi : Y \to Z$ are quasi-conformal homeomorphisms and X, Y and Z are perfect compact ultrametric spaces of diameter one the composition $\psi \circ \phi$ is not quasi-conformal. It is shown however, that if in addition to being quasi-conformal ϕ and ψ are the induced bi-Hölder homeomorphisms through a faithful functor that I will introduce, then, not only are ϕ and ψ quasi-conformal, but the composition is a bi-Hölder quasi-conformal homeomorphism. (Received September 20, 2007)

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