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Hrant Hakobyan* (hhakob@math.toronto.edu), 40 St. George street, Toronto, Ontario M5S 2E4, Canada. *A lower bound for Conformal dimension.*

Conformal dimension of a metric space X is the infimal Hausdorff dimension of all quasisymmetric images of X . We give a lower bound for conformal dimension in terms of positivity of a modulus of a system of measures in the sense of Fuglede. It follows that if $E \subset R$ is minimal for conformal dimension and supports a measure λ such that for every $\epsilon > 0$ there is a finite $C > 0$ so that

$$C^{-1}r^{1+\epsilon} < \lambda(E \cap B(x, r)) < Cr^{1-\epsilon}$$

then $E \times Y$ is minimal for conformal dimension for every compact Y . (Received August 19, 2008)