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Matthew Badger* (badger@math.sunysb.edu), Stony Brook University, Department of Mathematics, Stony Brook, NY 11794-3651. *Extremal metrics for extremal length and modulus of measures.*

For each $1 \leq p < \infty$, we formulate a necessary and sufficient condition for an admissible metric to be extremal for the Fuglede p -modulus of a system of measures. When $p = 2$, this characterization generalizes Beurling's criterion, a sufficient condition for an admissible metric to be extremal for the extremal length of a planar curve family. (Received February 18, 2013)