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**Joel Louwsma\*** (jlouwsma@ou.edu), Department of Mathematics, The University of Oklahoma, Norman, OK 73019-3103. *Extremality of the rotation quasimorphism on the modular group.*

It follows from work of Bavard that  $\text{scl}(A) \geq \text{rot}(A)/2$  for any element  $A$  of the modular group  $\text{PSL}(2, \mathbb{Z})$ , where  $\text{scl}$  denotes *stable commutator length* and  $\text{rot}$  denotes the *rotation quasimorphism*. Sometimes this bound is sharp, and sometimes it is not. We study which elements  $A \in \text{PSL}(2, \mathbb{Z})$  have the property that  $\text{scl}(A) = \text{rot}(A)/2$ . First we describe some experimental results based on computation of stable commutator length. Then we discuss the following stability theorem: for any element of the modular group, the product of this element with a sufficiently large power of a parabolic element is an element that satisfies  $\text{scl} = \text{rot}/2$ . This result is joint work with Danny Calegari. (Received December 12, 2011)