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Danny Calegari (dannyc@its.caltech.edu) and **Dongping Zhuang***
(dongping.zhuang@vanderbilt.edu). *Stable W -length.*

Given a subset W of a free group F , a W -word of a group G is the image of some $w \in W$ under some homomorphism $f : F \rightarrow G$. Let G_W be the subgroup of G generated by all W -words. G_W is called the verbal subgroup of G . (For example, when $W = [x, y]$, the corresponding verbal subgroup is the commutator subgroup of G .) We study the W -length and stable W -length defined on G_W . A geometric proof of Bavard's duality theorem about stable commutator length will be presented, which will be generalized to a larger class of verbal subgroups. This is a joint work with Danny Calegari. (Received January 18, 2011)