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Jon McCammond* (jon.mccammond@math.ucsb.edu). *Bounding reflection length in an affine Coxeter group.*

In any Coxeter group, the conjugates of elements in the standard minimal generating set are called reflections and the minimal number of reflections needed to factor a particular element is called its reflection length. In this talk I discuss a recent result with Kyle Petersen uniformly and explicitly bounding the reflection length function on an affine Coxeter group. More precisely we prove that the reflection length function on an affine Coxeter group that naturally acts faithfully and cocompactly on \mathbf{R}^n is bounded above by $2n$ and we also show that this bound is optimal. A complementary recent result by Duszenko shows that spherical and affine Coxeter groups are the only Coxeter groups with a uniform bound on reflection length. (Received December 12, 2011)