1154-11-2172 **Lydia Eldredge*** (leldredg@math.fsu.edu) and **Kate Petersen**. *Small Mahler Measure in Cubic Fields.* Preliminary report.

The Mahler measure of a polynomial in $\mathbb{Z}[x]$, is the product, taken over all roots r, of $max\{1, |r|\}$ and the absolute value of its leading coefficient. We'll talk about the problem of determining the smallest Mahler measure of a primitive element in a cubic field. This smallest value is known to depend on the discriminant of the field by work of Silverman and Ruppert. We'll discuss an algorithm to determine this minimum value, our numerical findings, and bounds for this minimum for some families of cubic fields. (Received September 17, 2019)