## 1145-11-1566 Joshua Harrington and Lenny Jones\* (lkjone@ship.edu). A New Condition Equivalent to the Ankeny-Artin-Chowla Conjecture.

Let  $p \equiv 1 \pmod{4}$  be prime, and let  $\epsilon = (t + u\sqrt{p})/2$  be the fundamental unit of  $\mathbb{Q}(\sqrt{p})$ . In 1952, Ankeny, Artin and Chowla asked if  $\epsilon$  always has the property that  $u \not\equiv 0 \pmod{p}$ . The conjecture that the answer to this question is affirmative is known as the Ankeny-Artin-Chowla (AAC) conjecture, and is still unresolved. In this presentation, we present a new condition that is equivalent to the AAC-conjecture. (Received September 23, 2018)