1106-AB-861 **Michael J. Griffin*** (mjgrif3@emory.edu), Dept. of Math and CS, Emory University, 400 Dowman Dr., W401, Atlanta, GA 30322. *Algebraic units arising from a framework of Rogers–Ramanujan identities.*

The q-series given by the two Rogers–Ramanujan identities

$$\sum_{n=0}^{\infty} \frac{q^{n(n+\sigma)}}{(1-q)\cdots(1-q^n)} = \prod_{n=0}^{\infty} \frac{1}{(1-q^{5n+1+\sigma})(1-q^{5n+4-\sigma})},$$

where $\sigma = 0$ or 1, play many roles in mathematics and physics. The right hand side of the identities show that these q-series are essentially modular functions. Their quotient, the Rogers–Ramanujan continued fraction, has the special property that its *singular values* are algebraic integral units. In recent joint work, the speaker, Ken Ono, and Ole Warnaar have found a framework which extends these identities to doubly-infinite families of q-series identities of the form

"Infinite sum" = "Infinite product modular function".

These new q-series are specialized characters of affine Kac–Moody algebras. As with the Rogers–Ramanujan functions, they have a rich structure of algebraic special values. Here we consider this structure; generalizing the Rogers–Ramanujan continued fraction, we prove in the case of $\mathrm{A}_{2n}^{(2)}$ that the relevant q-series quotients give algebraic integral units. (Received September 08, 2014)