1145-11-364 Madeline Locus Dawsey* (madeline.locus@emory.edu) and Ken Ono. CM Evaluations of the Goswami-Sun Series.

In recent work, Sun constructed two q-series identities whose limits as $q \to 1$ give new derivations of the Riemann-zeta values $\zeta(2)$ and $\zeta(4)$. Goswami extended these identities by obtaining an infinite family of q-series which analogously lead to new derivations of $\zeta(2k)$ for every $k \in \mathbb{Z}^+$. Using the fact that $\Gamma\left(\frac{1}{2}\right) = \sqrt{\pi}$, it follows that $\zeta(2k) \in \mathbb{Q} \cdot \Gamma\left(\frac{1}{2}\right)^{4k}$. Therefore, it is natural to seek further specializations of these series which involve special values of the Γ -function. We show that the values of these series at all CM points τ , where $q := e^{2\pi i \tau}$, are algebraic expressions in terms of specific ratios of Γ -values. (Received September 04, 2018)