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W. Duke and **P. Jenkins*** (jenkins@math.ucla.edu), UCLA Mathematics Department, Box 951555, Los Angeles, CA 90095-1555. *Zeros of Weakly Holomorphic Modular Forms.*

We define a canonical basis $\{f_n^{(k)}\}_{n=0}^\infty$ for the space of weakly holomorphic modular forms of weight $k = 12\ell + s$ on $\mathrm{PSL}_2(\mathbb{Z})$, and show that for all $n \geq |\ell|$, all of the nontrivial zeros of $f_n^{(k)}$ in the standard fundamental domain lie on the unit circle. (Received September 11, 2006)