1145-11-2397 **Daniel Garbin*** (dgarbin@qcc.cuny.edu), Queensborough Community College CUNY, Mathematics and Computer Science, 222-05 56th Avenue, Bayside, NY 11364. *Effective bounds for Fourier coefficients of certain weakly holomorphic modular forms.*

In Jorgenson et. al., Exp. Math. 25 (2016) 295–319, the authors derived generators for the function fields associated to certain low genus arithmetic surfaces realized through the action of the discrete Fuchsian group $\Gamma_0(N)^+/\{\pm 1\}$ on the upper half plane. In particular, they constructed modular forms which are analogs to the modular discriminant and the Klein j-invariant of the full modular group $\mathrm{PSL}(2,\mathbb{Z})$. In this presentation, we show how to produce effective and practical bounds for the Fourier coefficients in the q-expansion of such generators, thus allowing for rigorous numerical inspection of the generators. (Received September 25, 2018)