

1116-11-1222

**Joseph Hundley** (jahundle@buffalo.edu), Department of Mathematics, 244 Mathematics Building, University at Buffalo, Buffalo, NY 14260-2900, and **Qiao Zhang\*** (q.zhang@tcu.edu), Department of Mathematics, Texas Christian University, Fort Worth, TX 76129. *Fourier Coefficients of Theta Functions at Cusps other than Infinity.*

In this paper we consider theta functions twisted by certain Dirichlet characters, and derive explicit formulas for their Fourier coefficients at cusps other than infinity. The method is based on expressing these theta functions in terms of explicit elements of the adelic Schwartz space and studying the action of the adelic metaplectic group on them. The formulae obtained are quite amenable to effective computations, in contrast to those available in the previous work of Goldfeld, Hundley and Lee on the integral weight case. In particular, we prove a conjecture of Goldfeld and Gunnells on twisted theta functions. (Received September 18, 2015)