1014-11-766 **Paul Jenkins*** (pjenkins@math.wisc.edu), Mathematics Department, University of Wisconsin-Madison, 480 Lincoln Drive, Madison, WI 53706. *Maass-Poincaré series and p-divisibility of traces of singular moduli.*

Zagier initiated the study of traces of singular moduli $\mathrm{Tr}(d)$ and their generalizations as coefficients of certain weakly holomorphic half integral weight modular forms. We discuss the p-adic properties of these traces and consequent congruences. In the case where p splits in $\mathbb{Q}(\sqrt{-d})$, we recover Edixhoven's observation that $\mathrm{Tr}(p^{2n}d) \equiv 0 \pmod{p^n}$. (Received September 23, 2005)