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Keenan Monks (monks@harvard.edu), **Sarah Peluse** (peluse@uchicago.edu) and **Lynnelle Ye*** (lynnelle@stanford.edu). *Congruence Properties of Borchers Product Exponents.*

In his striking 1995 paper, Borchers found an infinite product expansion for certain modular forms with CM divisors. In particular, this applies to the Hilbert class polynomial of discriminant $-d$ evaluated at the modular j -function. Among a number of powerful generalizations of Borchers' work, Zagier made an analogous statement for twisted versions of this polynomial. He proves that the exponents of these product expansions, $A(n, d)$, are the coefficients of certain special half-integral weight modular forms. We study the congruence properties of $A(n, d)$ modulo a prime ℓ by relating it to a modular representation of the logarithmic derivative of the Hilbert class polynomial. (Received September 25, 2012)