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Pavel Guerzhoy* (pavel@math.hawaii.edu), 2565 McCarthy Mall, Keller Hall, Department of Mathematics, University of Hawaii at Manoa, Honolulu, HI 96822. *On Zagier's adèle*. Preliminary report.

Don Zagier suggested a natural construction, which associates a real number and p -adic numbers for all primes p to the cusp form $g = \Delta$ of weight $k = 12$. He claimed that these quantities constitute a rational adèle. A proof of this claim depends on the fact that the space of cusp forms is one-dimensional; only finitely many such cases for the full modular group are known.

We discuss the proof of a similar statement when g is a weight $k = 2$ primitive form with rational integer Fourier coefficients; there are infinitely many such forms g . The proof depends on a version of Hodge decomposition for the formal group law of the rational elliptic curve associated with g . (Received August 08, 2013)