1005-20-79 **Lisa Carbone*** (`carbonel@math.rutgers.edu`), Rutgers Math Dept, Hill Ctr-Busch Campus, 110 Frelinghuysen Rd, Piscataway, NJ 08854. *Lattices, Buildings and Kac-Moody Groups.*

Let K be a Kac-Moody Lie algebra and let G denote a Kac-Moody group associated with K. When K is of affine type, the commutator subalgebra of K is a central extension of a loop algebra and G is a central extension of a classical group. However if K is of hyperbolic type, many fundamental questions about the structure of K and G remain unanswered. Using representation theory of K and working over finite fields, Carbone and Garland have developed structure theorems for hyperbolic Kac-Moody groups G and their lattices. Here we show that although G has no obvious arithmetic or algebraic structure, lattices in rank 2 Kac-Moody groups contain congruence subgroups. These are defined in direct analogy with congruence subgroups of arithmetic lattices in simple algebraic groups. (Received January 29, 2005)