1009-22-28 **Keivan Mallahi-Karai*** (keivan@yale.edu), Yale University, Department of Mathematics, PO Box 208283, New Haven, CT 06520-8283. On Some Generalizations of the Oppenhein Conjecture.

Let Q be a quadratic form over the field of real numbers which is indefinite and irrational. Oppenheim conjectured that the values of Q over the set of integers is dense in R. This conjecture was proved by G. Margulis by using the theory of actions of Lie groups on homogeneous spaces. In this work, we set up and prove a version of this conjecture over local fileds of positive characteristic. The proof relies heavily on the work of Margulis. (Received June 21, 2005)