

Meeting: 998, Houston, Texas, SS 2A, Special Session on Representations of Algebras

998-16-350 **Michael S Barot*** (barot@matem.unam.mx), Instituto de Matematicas, UNAM, Ciudad Universitaria, 04510 Mexico, D.F., Mexico, and **José Antonio de la Peña** (jap@matem.unam.mx). *Root forms.*

For an integral quadratic form $q : \mathbb{Z}^n \rightarrow \mathbb{Z}$ and a t -tuple of q -roots $r = (r_1, \dots, r_t)$, that are vectors $r_i \in \mathbb{Z}^n$ satisfying $q(r_i) = 1$, we consider the *root form* $q_r : \mathbb{Z}^t \rightarrow \mathbb{Z}$, $q_r(x) = q(\sum_i x_i r_i)$.

Several questions will be addressed, such as a criterion for q to be equivalent to q_r or in case q is a non-negative unit form, how the corank and the Dynkin-type of q and q_r relate. (Received March 02, 2004)