

It is well-known that the dynamical classification of isometries of the real hyperbolic plane can be characterized algebraically by the traces of the matrices representing the isometries. In this thesis we generalize that result for isometries of arbitrary dimensional complex and quaternionic hyperbolic spaces using two different approaches. More generally, we classify dynamical action of matrices in  $SU(p, q)$  using the coefficients of their characteristic polynomials. After this, we concentrate on the group  $SU(3, 1)$  that acts as the isometry group of the three dimensional complex hyperbolic space. We have given a complete account of the above classification for  $SU(3, 1)$ . This generalizes a theorem of Goldman for  $SU(2, 1)$ . We also classify pair of loxodromic elements in  $SU(3, 1)$  that generalizes earlier work of Parker and Platis who classified pair of loxodromics in  $SU(2, 1)$ .