TWAREQUE ALI, Concordia University, Montreal
Quaternionic wavelets on quaternionic Hilbert spaces

The standard wavelet group can be identified with the semidirect product of the reals R with R*, the two-dimensional wavelet group with the semidirect product of the complexes C with C*. We look at the semidirect product of the quaternions H with H*. It is interesting to study representations of this group on Hilbert spaces over the complexes and over the quaternions. In this talk we shall discuss some preliminary results in this direction.