

Titulo: "Fock spaces and small representations"

Abstract: Fock spaces are special Hilbert spaces, which were introduced in quantum physics to study many particle systems. In mathematics one finds a variant whose elements are holomorphic functions, which are square integrable with respect to a Gauss measure. These spaces turned out to be very useful in harmonic analysis on phase spaces. In particular, one finds realizations of the Shale-Segal-Weil representation of the metaplectic group on Fock spaces.

In this talk we start from the classical examples and move on to families of more general Fock spaces, on which one can realize large families of singular unitary representations in a unified geometric way.