1077-22-1388 Bent Orsted* (orsted@imf.au.dk). Segal-Bargmann transforms: Old and new. Preliminary report.

The classical Segal-Bargmann transform is an important integral operator giving the equivalence between two models of the metaplectic representation. It has been extended to many equally interesting situations, involving Hilbert spaces of holomorphic functions and harmonic analysis on Lie groups. We shall mention some new analogues in connection with Euclidian Jordan algebras and minimal unitary representations, where we find an integral transform between two models of the representations; in particular, there is a natural extension of the theory of spherical harmonics to this setting. Here we report on joint work with J. Hilgert, T. Kobayashi, and J. Moellers. (Received September 19, 2011)