

Meeting: 998, Houston, Texas, SS 10A, Special Session on Complex Analysis and Operator Theory

998-81-310 **Carlos Villegas-Blas*** (villegas@matcuer.unam.mx), Universidad Nacional Autonoma de Mexico, Inst. de Matematicas, Cuernavaca, A.P.273-3, Admon. 3, 62251 Cuernavaca, Morelos, Mexico. *The Bargmann Transform and Spaces of Holomorphic Functions on Quadrics*. Preliminary report.

We will introduce a Bargmann Transform for the spaces of square-integrable functions on the unit spheres of dimensions 1,2,3 and 5. This will be done in connection with the Kepler problem and the Hopf fibration. Then, as the range of the Bargmann Transform, spaces of Holomorphic functions on quadrics will appear and several properties of these spaces will be discussed including coherent states. (Received March 01, 2004)