

1086-32-1902 **Marco M. Peloso*** (marco.peloso@unimi.it), Dipartimento di Matematica, Via C. Saldini 50, Università degli Studi di Milano, 20133 Milano, Italy. *Function spaces on the complex sphere and regularity of solutions of dispersive equations.*

Consider the decomposition of $L^2(S^{2n-1})$ into eigenspaces for the sublaplacian on the sphere in \mathbf{C}^n .

In this talk we introduce some new spaces of functions on S^{2n-1} that measure smoothness of functions differently according to their spectral localization.

We study the boundedness of the sublaplacian spectral projections with respect to these norms.

We use this scale of spaces to study the regularity of solution of dispersive equations for the sublaplacian, for instance the Schrodinger and the wave equations.

This talk is based on joint work with V. Casarino. (Received September 24, 2012)