1067-35-2010 **Tomoyuki Kakehi*** (kakehi@math.tsukuba.ac.jp), Department of Mathematics, Okayama University, Tsushima Naka 3-1-1, Okayama city, Okayama 700-8530, Japan. *L^2-wellposedness for Schrödinger type equations on $\mathbf{S}^n$.* Preliminary report.

In our talk, we deal with Schrödinger type equations of the form $i\partial_t u = \Delta_{\mathbf{S}^n} u + Bu + c(x)u + f(t,x)$. Here B is a complex valued vector field on $\mathbf{S}^n$ and $c(x)$ is a smooth function. Under some assumption on $\mathrm{Re}B$, we will give a necessary and sufficient condition for the L^2-wellposedness of the above equation, using the geodesic Radon transform of a certain one form on $\mathbf{S}^n$ associated with $\mathrm{Re}B$. (Received September 22, 2010)