1067-43-556   **Jens Gerlach Christensen*** (`jens@math.umd.edu`). *Sampling in reproducing kernel Banach spaces on Lie groups.*

We derive sufficient conditions on the reproducing kernel Banach space and its reproducing kernel to ensure that it is possible to reconstruct a function from its samples. This has applications in wavelet theory and in particular for deriving atomic decompositions and frames for coorbit spaces. In particular we show how to use Gårding vectors as atoms. (Received September 09, 2010)