Gestur Olafsson* (olafsson@math.lsu.edu), Department of Mathematics, Louisiana State University, Baton Rouge, LA 70803, and Jens Christensen. Function spaces and representations.

We present an abstract framework for construction of Banach spaces of distributions from group representations. Spaces that can be described by this technique include the whole Banach-scale of Bergman spaces and Besov spaces on the light cone. We show that atomic decompositions can be constructed through sampling. (Received September 20, 2009)