1172-43-199    **Gestur Olafsson\*** (`olafsson@math.lsu.edu`), Lockett Hall, Baton Rouge, LA 70803, and **Jens G Christensen**. *Atomic decomposition of Bergman spaces.*

In 1980 Coifman and Rochberg gave a quite general atomic decomposition of spaces of holomorphic $L^p$ function on unbounded symmetric domains. They also pointed out that they were not able to transfer those results to the bounded realization of those domains.

   In this talk we discuss the case of bounded symmetric domains. Our toolbox contains some basic facts about projective representations but we will keep that at minimum. By applying representation/coorbit theory we obtain a large family of new atoms, including those of Coifman and Rochberg. Our approach also allows us to describe the relation between atoms for the bounded and unbounded realizations of the domain thus solving one of the issues raised by Coifman and Rochberg. (Received August 28, 2021)