Meeting: 1003, Atlanta, Georgia, SS 25A, AMS Special Session on Complex and Functional Analysis, I

1003-32-782 Dror Varolin* (dror@math.uiuc.edu), Urbana, IL 61801, and Tamas Forgacs (forgacs@uiuc.edu), Urbana, IL 61801. Interpolation and Sampling hypersurfaces for Generalized Bergman Spaces On the Unit Ball.

We describe results on sufficient conditions for a hypersurface in the unit ball to be an interpolation or a sampling hypersurface, with respect to weighted Bergman spaces on the unit ball in complex Euclidean space of dimension at least two. The methods involved are of two sorts; potential theory for the Bergman Laplacian in the ball, and the twisted dbar methods used in the extension theorem of Ohsawa-Takegoshi. (Received September 29, 2004)