

Meeting: 1002, Pittsburgh, Pennsylvania, SS 10A, Special Session on Trends in Operator Theory and Banach Spaces

1002-47-25 **Abeba Tadesse*** (abt4@pitt.edu), Abeba Tadesse, Department of Mathematics, University of Pittsburgh, Pittsburgh, PA. 15260. *Characterization of Hardy/Bergmann Spaces on finitely connected domain that support compact composition operators.* Preliminary report.

For G simply connected domain, J.H.Shapiro and W.Smith recently proved the following: The "Hardy Smirnov Space" $E^p(G)$ ($0 < p < \infty$) supports compact composition operator if and only if ∂G has a finite one dimensional Hausdorff measure. In this paper, we partially extend this same result for G finitely connected domain and we also extend the corresponding result for the standard Bergmann space, with the Hausdorff boundary condition " ∂G has finite $1 - d$ Hausdorff measure" replaced by " G has finite area". Primary Reference : Shapiro, Joel H. and Smith, Wayne, Hardy Spaces that support no composition operators, J.Func.Anal. 205 (2003),no. 1, 62-89. (Received July 09, 2004)