

Quanlei Fang

Bronx Community College

## Multiplier characterization for the Drury-Arveson space

### Abstract

Let  $H_n^2$  be the Drury-Arveson space on the unit ball  $\mathbf{B}$  in  $\mathbf{C}^n$ , and suppose that  $n \geq 2$ . Let  $k_z, z \in \mathbf{B}$ , be the normalized reproducing kernel for  $H_n^2$ . In this talk we will discuss the following rather basic question in the theory of the Drury-Arveson space: For  $f \in H_n^2$ , does the condition  $\sup_{|z|<1} \|fk_z\| < \infty$  imply that  $f$  is a multiplier of  $H_n^2$ ? We show that the answer is negative and the analogue of the familiar norm inequality  $\|H_\varphi\| \leq C\|\varphi\|_{\text{BMO}}$  for Hankel operators fails in the Drury-Arveson space. This is joint work with Jingbo Xia.

Talk time: 07/18/2016 3:30PM— 07/18/2016 3:50PM

Talk location: Cupples I Room 113

Special Session: State space methods in operator and function theory. Organized by J. Ball and S. ter Horst.