1125-47-780 **Stefan Richter*** (srichter@utk.edu). *Cyclic vectors in the Drury-Arveson space.* Preliminary report.

The Drury-Arveson space H^2_d is the space of analytic functions on the unit ball $\mathbb{B}_d$ of $\mathbb{C}^d$ with reproducing kernel $k_w(z) = \frac{1}{1-\langle z,w\rangle}$. It is well-known to consist of all analytic functions f on $\mathbb{B}_d$ such that $R^k f \in L^2((1-|z|^2)^{2k-d}dV)$ for each positive integer k with $2k-d > -1$. Here $R = \sum_i z_i \frac{\partial}{\partial z_i}$ is the radial derivative operator and dV denotes Lebesgue measure on $\mathbb{B}_d$. A function $f \in H^2_d$ is called cyclic, if there are polynomials p_n such that $p_n f \to 1$ in H^2_d.

We will give an overview of our recent results on cyclic functions in H^2_d. Although in the multivariable situation we don't have analogues of the inner-outer factorization and cut-off techniques available, it turns out that some of our methods are motivated by work on the single variable Dirichlet space. (Received September 11, 2016)