1138-47-307   **Michael T. Jury*** (`mjury@ufl.edu`) and **Robert T.W. Martin** (`rtwmartin@gmail.com`). *The Smirnov class for the Drury-Arveson and Fock spaces.* Preliminary report.

A theorem of Alpay, Bolotnikov and Kaptonoğlu shows that every function in the Drury-Arveson space H_d^2 is the ratio of a multiplier and an outer multiplier. We give another proof of this result (and obtain a somewhat stronger conclusion), by first proving an analogous theorem for free (noncommutative) holomorphic functions associated to the Fock space, and then taking free lifts. In particular we show that every $f \in H_d^2$ can be factored as $f = b/a$ where a, b are multipliers of H_d^2 which lift to contractive free functions A, B forming an "inner-outer pair." The proof rests on the observation that each $f \in H_d^2$ gives rise to a densely defined (but in general unbounded) multiplication operator in H_d^2. (Received February 12, 2018)