

The Drury-Arveson space

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I will talk about the results in William Arveson's paper, "Subalgebras of C^* algebras - III", published in Acta Mathematica, 1998. Arveson extensively analyses a Hilbert space of analytic functions on the complex ball, now called the *Drury-Arveson space*. Among the several results he proves are a higher dimensional version of Von-Neumann's inequality and a model theory for commuting row contractions, i.e a tuple of commuting operators acting on a Hilbert space, $\{T_1, \dots, T_d\}$ such that

$$\sum_i T_i T_i^* \leq I$$

I will then talk about the important role the Drury-Arveson space plays in Nevanlinna Pick interpolation theory. Time permitting, I will also talk about the recent generalization of Carleson's Corona theorem due to Wick, Sawyer and Costea.