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Raphael Clouatre* (raphael.clouatre@umanitoba.ca) and **Kenneth R. Davidson**
(krdavids@uwaterloo.ca). *Absolute continuity for commuting row contractions.*

Absolutely continuous Hilbert space contractions admit a functional calculus which is weak-* continuous. Over the years, this finer continuity property has been exploited with great success to tackle a variety of important problems. At the root of this success is the fact that absolutely continuous contractions can be understood through the dual space of the disc algebra $A(\mathbb{D})$.

Turning to the topic of multivariate operator theory, we investigate the analogous notion of absolutely continuous commuting row contractions, and provide a complete characterization for it in measure theoretic terms. On the surface, the statements of our results are reminiscent of the corresponding classical single variable theorems. However, the underlying operator algebra \mathcal{A}_d consists of multipliers on the Drury-Arveson space, and thus is vastly different from $A(\mathbb{D})$. In particular, it is not a uniform algebra. We highlight the new tools that must be used to circumvent this difficulty. (joint work with Ken Davidson) (Received February 11, 2016)