1127-47-146 **Raphael Clouatre*** (raphael.clouatre@umanitoba.ca) and **Ken Davidson** (krdavids@uwaterloo.ca). *Purity of absolutely continuous constrained commuting row contractions.*

A Hilbert space contraction T is said to be *constrained* (or *of class* C_0) if it is absolutely continuous and the associated Sz.-Nagy–Foias H^∞-functional calculus has non-trivial kernel. The structure of such contractions is rather well-understood due to work of Sz.-Nagy, Foias, Bercovici and others, who developed flexible functional models. It is known that a constrained contraction must be pure: its minimal isometric coextension does not have a unitary summand. This is a basic ingredient of the aforementioned structure theory, and the purpose of this talk is to discuss a multivariate generalization of this fact. We show that it holds for a constrained absolutely continuous commuting row contraction T, provided that the ideal of functions which annihilate T has a sufficiently small zero set on the sphere. We also discuss some examples that illustrate the difficulties inherent to the higher dimensional setting. This is based on joint work with Ken Davidson. (Received February 01, 2017)