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Robert T.W. Martin* (rtwmartin@gmail.com), Dept. of Mathematics and Applied Mathematics, University of Cape Town, Cape Town, South Africa. *A Gleason solution model for row contractions.*

We extend the deBranges-Rovnyak functional model for completely non-coisometric (c.n.c.) contractions to a large class of c.n.c. row contractions from several copies of a Hilbert space to itself. In particular, we show that any c.n.c. row partial isometry is unitarily equivalent to a contractive Gleason solution in a deBranges-Rovnyak space contractively contained in Drury-Arveson space. Drury-Arveson space is a canonical several variable generalization of the Hardy space of analytic functions in the unit disk, and a Gleason solution is the appropriate several-variable analogue of the restricted backward shift. We further extend this model to a large class of row contractive extensions of c.n.c. row partial isometries. (Received September 15, 2016)