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**ROBERT MARTIN**, University of Cape Town

*Aleksandrov-Clark theory for the Drury-Arveson multiplier algebra*

The classical Aleksandrov-Clark theory for contractive analytic functions  $b$  on the unit disk studies the spectral and associated function theory of a family of rank-one unitary perturbations of the restriction of the backward shift to the deBranges-Rovnyak space  $K(b)$ . (Recall  $K(b)$  is a reproducing kernel Hilbert space of analytic functions in the disk which is contractively contained in the Hardy space  $H^2$ ).

We will present recent progress on extending this theory to the closed unit ball of the multiplier algebra of vector-valued Drury-Arveson space. This will include the development of a noncommutative Herglotz representation formula, solutions to the Gleason problem in  $K(b)$ , and a connection between (quasi-)extreme points and boundary representations of the Cuntz-Toeplitz algebra relative to a certain symmetrized subsystem of the Cuntz-Toeplitz operator system.