1086-47-2292   **Michael Jury*** (`mjury@ufl.edu`), PO Box 118105, Gainesville, FL 32611-8105. *Rank-one perturbations of Cuntz isometries.* Preliminary report.

Cuntz isometries are d-tuples $(V_1, \ldots V_d)$ of operators on Hilbert space H obeying the relations $V_i^* V_j = \delta_{ij}$, $\sum V_i V_i^* = I$. The row $(V_1, \ldots V_d)$ implements a unitary operator from $\bigoplus_{j=1}^d H$ to H. We consider families of rank-one perturbations of such "row unitaries," and describe their connections with multipliers of the Drury-Arveson space H_d^2, deBranges-Rovnyak subspaces of H_d^2, and the Gleason problem in these subspaces. A central role is played by the "mixed" characteristic function associated to the perturbed tuple. (Received September 25, 2012)