1133-43-313 **Constanze Liaw*** (liaw@udel.edu) and **Sergei Treil**. *General Clark model for finite rank perturbations.*

The unitary perturbations of a given unitary operator by finite rank d operators can be parametrized by $d \times d$ unitary matrices; this generalizes the rank $d = 1$ setting, where the Clark family is parametrized by the scalars on the unit circle. For finite rank perturbations we investigate the functional model of a related class of contractions, as well as a (unitary) Clark operator that realizes such a model representation for a particular contraction. We find a universal representation of the adjoint of the Clark operator, which features a matrix-valued Cauchy integral operator. By universal we simply mean that our formula is given in the coordinate free Nikolski–Vasyunin functional model. We express the matrix-valued characteristic functions of the model (for the class of contractions). In the case of inner characteristic functions results suggest a generalization of the normalized Cauchy transform to the finite rank setting. (Received July 31, 2017)