1163-30-421   **Michael Antoine Lorenzo Bush*** (`mikebush@udel.edu`), **Constanze Liaw** and **Robert T.W. Martin**. *Applications of Matrix-Valued Clark Measures to Differential Operators.* Preliminary report.

The theory of finite rank perturbations (FRP) allows for the determination of spectral information for broad classes of operators using the tools of analytic function theory. This work applies FRP to several examples of differential operators in order to investigate the spectral measures corresponding to those differential operators. In particular, the support and weights of the Clark measures are computed via the connection between matrix-valued contractive analytic functions and matrix-valued nonnegative measures through the Herglotz Representation Theorem. (Received September 06, 2020)