1136-32-464 **Luke D Edholm*** (edholm@umich.edu). *The Leray transform on two-dimensional model domains.*

One major difference between complex analysis in one and several variables is the lack of a true analogue to the one-variable Cauchy transform, **C**. By looking at domains satisfying a convexity condition, however, we are able to construct the Leray transform, **L**, an operator which shares many familiar properties with **C**. A significant amount of recent work has been done to study the mapping properties of **L** in various settings. I will focus on a family of model domains in $\mathbb{C}^2$, and discuss new techniques used in the analysis of the Leray operator. These models can be used to locally approximate a very general class of domains, and it is expected that the theorems in the model case will carry over to the general case. I will also discuss what these results mean in terms of dual CR structures on hypersurfaces in projective space. This is joint work with Dave Barrett. (Received January 21, 2018)