1163-47-695 **Jonathan H Brown**, **Adam H Fuller**, **David R Pitts*** (`dpitts2@unl.edu`) and **Sarah A Reznikoff**. *Quotients of some C^*-algebras by Regular Ideals.* Preliminary report.

For $S \neq \emptyset$ in a C^*-algebra $\mathcal{A}$, let $S^\perp := \{a \in \mathcal{A} : aS = Sa = 0\}$. An ideal J in $\mathcal{A}$ is *regular* if $(J^\perp)^\perp = J$.

Given an inclusion of C^*-algebras $\mathcal{D} \subseteq \mathcal{C}$ and an ideal $J \subseteq \mathcal{C}$, desirable properties need not pass to the quotient inclusion, $\mathcal{D}/(\mathcal{D} \cap J) \subseteq \mathcal{C}/J$. For example, if $\mathcal{D}$ is the C^*-algebra generated by the range projections of finite paths in the C^*-algebra, $C^*(E)$, of a row-finite directed graph E, the Cuntz-Krieger uniqueness theorem holds for the pair $(C^*(E), \mathcal{D})$ when E satisfies "condition (L)". But condition (L) need not be preserved under quotients.

In this talk, I will discuss the following.

Theorem 1: *Let E be a row-finite directed graph satisfying condition (L). If $J \subseteq C^*(E)$ is a* REGULAR *ideal, then J is invariant under the gauge action and $C^*(E)/J \simeq C^*(F)$, where F is a row-finite directed graph satisfying condition (L).*

Theorem 2: *Suppose $\mathcal{D}$ is a Cartan MASA in the C^*-algebra $\mathcal{C}$ and J is a regular ideal in $\mathcal{C}$. Then $\mathcal{D}/(\mathcal{D} \cap J)$ is a Cartan MASA in $\mathcal{C}/J$.* *(Received September 11, 2020)*