JIANJUN CHUAI, Memorial University of Newfoundland, St. John's, NL, A1C 5S7 *Invariant Theory for Sub-representations*

Let $G \subseteq \operatorname{GL}(V)$ be a finite linear group over a field F and let $W \subseteq V$ be an FG-submodule. In this paper, we study the relationship between the invariant rings $F[V]^G$ and $F[W]^G$. In particular, we give some necessary and sufficient conditions for the natural map $F[V]^G \mapsto F[W]^G$ to be surjective.

This is joint work with Eddy Campbell.