DAVID WEHLAU, Royal Military College of Canada
First main theorems for $\mathrm{SL}_2(\mathbb{F}_p)$ and C_p

I will describe a proof of the first main theorem for two-dimensional modular representations of the cyclic group of order p. I will explain how this result may be used to construct a generating set for the ring of vector invariants $\mathbb{F}[mV]^{\mathrm{SL}_2(\mathbb{F})}$, where $\mathbb{F}$ is any field of characteristic p and V is the defining representation of $\mathrm{SL}_2(\mathbb{F})$.

This is joint work with Eddy Campbell (Memorial University) and Jim Shank (University of Kent).