**ROGHAYEH MALEKI**, University of Regina

*Terwilliger algebras and triple transitivity in quasi-thin association schemes*

An association scheme $\mathfrak{X}$ on a finite set $V$ is a partition of $V \times V$ satisfying certain regularity conditions. The Terwilliger algebra $T_v$ of $\mathfrak{X}$ with respect to a vertex $v \in V$ is the algebra generated by the adjacency matrices of $\mathfrak{X}$ and the diagonal projections onto the subconstituents relative to $v$. The algebra $T_v$ satisfies the inclusions

$$T_{0,v} \subseteq T_v \subseteq \widetilde{T}_v,$$

where $T_{0,v}$ is a certain subspace, and $\widetilde{T}_v$ is the centralizer algebra of the stabilizer of $v$ in the automorphism group $Aut(\mathfrak{X})$ of $\mathfrak{X}$. An association scheme $\mathfrak{X}$ is called *triply transitive* if $\mathrm{Aut}(\mathfrak{X})$ acts transitively on $V$ and $T_{0,v} = T_v = \widetilde{T}_v$ for $v \in V$.

This talk investigates the structure of the Terwilliger algebra of quasi-thin association schemes. In particular, we establish necessary and sufficient conditions for a quasi-thin association scheme to be triply transitive.