# Algebra and Geometry Seminar

**Speaker**: Avi Steiner (University of Western Ontario)

**Title**: "Symmetrizing" logarithmic derivations with respect to matroid duality.

**Abstract**: Of interest to people who study both hyperplane arrangements and commutative algebra are the homological properties of the module of logarithmic derivations of a hyperplane arrangement $\mathcal{A}$. I will introduce the "ideal of pairs", which is a sort of "symmetrization" of this module of logarithmic derivations with respect to matroid duality. This is an ideal which simultaneously "sees" many of the homological properties of both the arrangement and its dual.