**MATTHEW KENNEDY**, University of Waterloo
*Amenability, proximality and higher order syndeticity*

I will discuss new descriptions of some universal flows associated to a discrete group, obtained using what we view as a kind of "topological Furstenberg correspondence." The descriptions are algebraic and relatively concrete, involving subsets of the group satisfying a higher order notion of syndeticity. We utilize them to establish new necessary and sufficient conditions for strong amenability and amenability. Throughout, I will discuss connections to operator algebras. This is joint work with Sven Raum and Guy Salomon.