

---

**CLIFTON CUNNINGHAM**, University of Calgary

*A geometric and categorical description of complete Langlands parameters for quasi-split  $p$ -adic groups*

Let  $G$  be a connected reductive quasi-split algebraic group over a  $p$ -adic field. In this talk we introduce an abelian category of equivariant perverse sheaves on an ind-variety built from  ${}^L G$ , the L-group for  $G$ , and show that there is a canonical bijection between isomorphism classes of simple objects in this category and complete Langlands parameters. Joint work with Pramod Achar, Masoud Kamgarpour and Hadi Salmasian. This group is currently working on a proof that this category is Koszul.

This geometric and categorical approach to complete Langlands parameters suggests a geometric and categorical approach to irreducible admissible representations and the local Langlands Correspondence itself, which is already realised in joint work with David Roe when  $G = GL(1)$ , and under construction for other algebraic tori. Time permitting, I will also say a few words about this work.