Abstract:

I will talk about my joint work with Dave Benson which constructs new symmetric tensor categories in characteristic 2 arising from modular representation theory of elementary abelian 2-groups, and about its conjectural generalization to characteristic p>2. I will also discuss my work with Gelaki and Coulembier which shows that integral symmetric tensor categories in characteristic p>2 whose simple objects form a fusion category are super-Tannakian (i.e., representation categories of a supergroup scheme).