Speaker:Bigelow, StephenTitle:Braid groups and symmetric groupsAuthors:Bigelow, StephenAffiliations:University of Melbourne

Abstract: Representations of the symmetric group are not well understood when the field has nonzero characteristic. They are closely related to representations of the Hecke algebra when the parameter q is a root of unity. Lawrence has shown how these representations can be defined topologically, as an action of the braid group on the homology of certain configuration spaces. I will use some examples to illustrate how this enables one to "see" why representations become reducible at some roots of unity.