

Title: Categorification with unequal parameters

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Abstract: Categorification provides a powerful framework for studying bases of algebras and representations. A prominent example is the Hecke category, which categorifies the Hecke algebra. This algebra depends on a parameter q , reflected in a grading on the Hecke category. There also exist Hecke algebras with several unequal parameters. In this talk, we explore how certain small characteristic phenomena can be used to endow the Hecke category with multigradings that categorify these unequal parameters. This leads to a new and interesting theory of $(p-)$ canonical bases.