

GEOMETRY AND TOPOLOGY SEMINAR

The 2-representation theory of Soergel bimodules of finite Coxeter type: a road map to the complete classification of all simple transitive 2-representations

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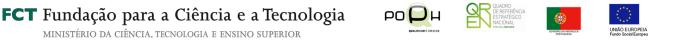
Abstract. I will first recall Lusztig's asymptotic Hecke algebra and its categorification, a fusion category obtained from the perverse homology of Soergel bimodules. For example, for finite dihedral Coxeter type this fusion category is a 2-colored version of the semisimplified quotient of the module category of quantum sl(2) at a root of unity, which Reshetikhin-Turaev and Turaev-Viro used for the construction of 3-dimensional Topological Quantum Field Theories.

In the second part of my talk, I will recall the basics of 2-representation theory and indicate how the fusion categories above can conjecturally be used to study the 2-representation theory of Soergel bimodules of finite Coxeter type.

This is joint work with Mazorchuk, Miemietz, Tubbenhauer and Zhang.

THURSDAY, JANUARY 2411H00Room 1.09

Please note the unsual date and time



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