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*Soergel algebras as bound-quiver algebras: the infinite dihedral case*

The *blob algebra*  $\mathrm{TLb}_N$  is a finite-dimensional cellular quotient of the Hecke algebra of type B. It appears naturally in statistical physics and admits a notoriously intricate representation theory.

In this talk, we use *Soergel bimodules of affine type  $A_1$*  to give a *bound-quiver algebra realization* for blocks of  $\mathrm{TLb}_N$ . We then use this novel realization to deduce surprising results about the endomorphism algebras of indecomposable projective  $\mathrm{TLb}_N$ -modules and obtain, in particular, generalizations of Soergel's famous *Endomorphismensatz* and *Struktursatz*.

The talk is based on joint work with Alexis Leroux-Lapierre and Yvan Saint-Aubin.