1167-18-204   **Michael Reeks*** (`mar055@bucknell.edu`) and **Alistair Savage**. *Frobenius W-algebras and traces of Frobenius Heisenberg categories.*

The Heisenberg algebra plays an important role in many areas of mathematics and physics. Khovanov constructed a categorical analogue of this algebra which has deep connections to representation theory and combinatorics. The Grothendieck group of this category is isomorphic to the Heisenberg algebra, but the trace decategorification has a richer structure: it is isomorphic to a W-algebra, an infinite-dimensional Lie algebra related to conformal field theory. In this talk, we describe work extending this latter result to a generalized version of the Heisenberg category associated to an arbitrary graded Frobenius algebra F. We describe a basis of the trace of this Frobenius Heisenberg category and discuss progress towards computing its algebra structure, which is conjectured to be a version of a W-algebra associated to F. (Received March 07, 2021)