

Title: Homological Quantum Group Invariants From Floer Theory

Abstract:

I will describe a theory that gives a uniform approach to categorification of $U_q(\mathfrak{g})$ quantum group link invariants. The theory generalizes Heegaard Floer theory, which corresponds to $\mathfrak{g}=\mathfrak{su}(1|1)$, to other Lie superalgebras. It also provides a geometric, and explicitly solvable, description of the categorification of these invariants based on the category of KLRW algebras.