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Mikhail Khovanov* (khovanov@math.columbia.edu), 2990 Broadway, Department of mathematics, Columbia University, New York, NY 10463. *Categorification at a prime root of unity.*

Rings important in quantum theory, such as quantum groups and Hecke algebras, exhibit different behaviours when the parameter q is generic and when a root of unity. Upon categorification, generic parameter q becomes a grading shift or, more generally, an automorphism of a triangulated category. How categorification works at a root of unity is a much more subtle and mostly unsolved problem, In this talk we'll discuss categorifications when the degree of a root of unity is a prime number and categorification happens over a field of characteristic p , including a categorification of the small quantum $\mathfrak{sl}(2)$. (Received February 08, 2015)