

# NILPOTENT QUANDLES

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Abstract: Quandles are algebraic structures which were introduced independently by Joyce and by Matveev in 1982 in order to encode invariants of knots and links. They showed in particular that the fundamental quandle is a complete invariant of links. In this talk, we introduce a particular class of quandles, which we call nilpotent. We explore the basic properties of such quandles and of the invariants that they encode. In particular, we show how the language of nilpotent quandles can be used to study invariants of links up to link-homotopy.