The graphic axiom and self-distributivity. Preliminary report.

Shelves, racks, spindles, and quandles are algebraic structures with axioms inspired by the Reidemeister moves in knot theory. The graphic axiom, \( a \ast b = (a \ast b) \ast a \) was introduced by F. W. Lawvere in 1987 while studying graphic monoids.

Certain quandles satisfying the graphic axiom have interesting properties. In this talk, we will study these quandles from the point of rack and quandle homology. (Received January 30, 2018)