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Blake Mellor* (blake.mellor@lmu.edu). *Finite N -quandles of knots, links and graphs*. Preliminary report.

In this talk, we will investigate a generalization of the n -quandle for a knot, link or spatial graph. If a link or spatial graph has k components or edges, and given a k -tuple $N = (n_1, \dots, n_k)$ of positive integers, we define the N -quandle by adding relations $xy^{n_i} = x$ to the full quandle whenever y is an arc of edge i . The usual n -quandle is the case when $n_i = n$ for every i . In this case, Hoste and Shanahan provided a complete list of links where the n -quandle is finite, proving a conjecture of Przytycki. We extend the conjecture to spatial graphs and links where the entries of N are not all the same, and provide evidence for the extended conjecture by computing finite N -quandles associated to a number of links and spatial graphs. (Received February 05, 2020)