1053-55-61 Sam Nelson* (Sam.Nelson@cmc.edu), Department of Mathematics, Claremont McKenna College, 850 Columbia Ave, Claremont, CA 91711. Group enhancements of counting invariants. Counting invariants of knots and links count homomorphisms from a knot quandle (or biquandle, rack, group, etc.) into a finite target object of the same type. Enhancements associate a Reidemeister-invariant 'signature' of some type to each such homomorphism, refining and strengthening the counting invariant. In this talk, we will see a method of enhancing the counting invariants using finite groups extracted from the target object. (Received August 03, 2009)