1167-05-252 **Iva Halacheva*** (i.halacheva@northeastern.edu), **Tony Licata**, **Ivan Losev** and **Oded Yacobi**. *Braid group actions, crystals, and cacti.*

Let g denote a semisimple Lie algebra. Lusztig introduced an action of the braid group on any integrable representation of the quantum group of g. This action was realized categorically in work of Chuang-Rouquier, as shown by Cautis-Kamnitzer, where each braid group generator is upgraded to a complex of functors called a Rickard complex. I will describe a corresponding action of the cactus group on a g-crystal coming from a representation. In joint work with Licata, Losev and Yacobi, we show that this action can be recovered categorically from the Rickard complexes, when considering the positive lifts of the longest Weyl group elements for certain parabolics in g. (Received March 08, 2021)