1125-16-1749 **Iva Halacheva*** (i.halacheva@lancaster.ac.uk), **Joel Kamnitzer**, **Leonid Rybnikov** and **Alex Weekes**. *A monodromy action on crystals and the cactus group.* Preliminary report.

The shift of argument algebras associated to a finite-dimensional reductive Lie algebra $\mathfrak{g}$ are certain maximal commutative subalgebras of $U(\mathfrak{g})$. They are parametrized by a moduli space $M_{\mathfrak{g}}$, which in type A coincides with the Deligne-Knudson-Mumford moduli space of stable real curves of genus 0 with $n+1$ marked points. Furthermore, they have simple spectrum when acting on an irreducible highest-weight representation, and so produce a covering of $M_{\mathfrak{g}}$. We show that the resulting monodromy action coincides with a combinatorial action of the cactus group on $\mathfrak{g}$-crystals, realized via Schützenberger involutions. (Received September 19, 2016)