Cleveland State
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COLLOQUIUM

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Super Multiset RSK and the Restriction Problem

Friday Oct. 20th at 2:30pm in RT 1516

Bio: Alexander recently got his Ph.D. from Dartmouth College after completing his undergrad at Michigan State University. He is currently a VAP at Oberlin College and is happy to be back in the great lakes region. His research is broadly in the field of algebraic combinatorics, where he likes to take complicated questions in representation theory, group theory, and algebraic geometry and model them with nice combinatorial objects.

Abstract: Diagram algebras like the Temperley-Lieb algebra, the partition algebra, and more recently the multiset partition algebra are associative algebras whose product is given by a combinatorial operation on graph-theoretic diagrams. Because they occur naturally as centralizer algebras of the symmetric group, they have been used to approach long-standing questions about the representation theory of the symmetric group like the Kronecker and restriction problems.

In this talk, I will introduce a generalization of the RSK algorithm, which has proven useful in studying certain diagram algebras associated to the GL_n representation $\bigwedge\nolimits^{r}V$, and I will discuss how these methods can be used to reframe the problem of restricting GL_n representations to S_n

Refreshments will be served in RT 1517 at 2:10pm