

BOSTON UNIVERSITY GEOMETRY SEMINAR

# Representation theory and a strange duality for symplectic varieties.

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Wednesday, April 8, 4-5 pm in MCS 149  
Tea 3:45-4 in MCS 153

**Abstract:** In recent work with Braden, Licata and Proudfoot, we showed that certain algebras constructed from hyperplane arrangements have a number of nice properties which are surprisingly reminiscent of the BGG category  $\mathcal{O}$ ; in particular, they are Koszul, and Koszul duality corresponds to a well known combinatorial duality. I'll explain why we think properties are connected to a geometric origin for both these categories, and how this suggests an underlying duality between pairs of symplectic varieties.