

1163-14-203

Mee Seong Im* (meeseongim@gmail.com), Chauvenet Hall, Office 342, Department of Mathematics, United States Naval Academy, Annapolis, MD 21402, **Chun-Ju Lai** (cjlai@gate.sinica.edu.tw), Institute of Mathematics, Academia Sinica, Taipei, 10617, Taiwan, and **Arik Wilbert** (arik.wilbert@uga.edu), Department of Mathematics, University of Georgia, Athens, GA 30602. *Nakajima quiver varieties and irreducible components of Springer fibers.*

Springer fibers and Nakajima quiver varieties are amongst the most important objects in geometric representation theory. While Springer fibers can be used to geometrically construct and classify irreducible representations of Weyl groups, Nakajima quiver varieties play a key role in the geometric representation theory of Kac–Moody Lie algebras.

I will begin by first recalling some background on the objects of interest mentioned above. I will then connect Springer fibers and quiver varieties by realizing the irreducible components of two-row Springer fibers inside a suitable Nakajima quiver variety and describing the resulting subvariety in terms of explicit quiver representations.

Next, consider certain fixed-point subvarieties of these quiver varieties, which were studied by Henderson–Licata and Li with the goal of developing the geometric representation theory for certain coideal subalgebras. By applying this machinery, I will give an explicit algebraic description of the irreducible components of all two-row Springer fibers for classical types, thereby generalizing results of Fung and Stroppel–Webster in type A.

This is joint with C.-J. Lai and A. Wilbert. (Received August 26, 2020)