

Every type-A quiver locus is a Kazhdan-Lusztig variety

The Zariski orbit closures of the representations of type-A Dynkin quivers under the action of general linear groups are related in deep ways to Schubert varieties. In this paper, we construct a scheme-theoretic isomorphism from a type-A quiver locus to the intersection of some opposite Schubert cell and Schubert variety, also known as a Kazhdan-Lusztig variety in geometric representation theory. This isomorphism is a generalization, and also an unification, of the Zelevinsky maps on equioriented type-A quiver loci and bipartite type-A quiver loci which are respectively presented by A. V. Zelevinsky in 1985 and by R. Kinser and J. Rajchgot in 2015. This result provides a more direct and natural connection between type-A quiver loci and Schubert varieties than prior similar work.