

Similarities between moduli of vector bundles on curves and quiver representations

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Abstract

I will survey the dictionary between moduli spaces of vector bundles on curves, and moduli spaces of quiver representations. This dictionary can be used to translate results (and techniques) between an algebro-geometric setup and a representation-theoretic setup, and thus inform us of what we should try to prove. As an application, I will discuss recent work on the symmetries and deformations of moduli of quiver representations, and how these results are parallel to the classical results of Narasimhan–Ramanan for moduli of vector bundles.