Giovanni Cerulli Irelli, Cologne 2017 Title: Cellular decomposition of quiver Grassmannians

Abstract: I will report on a joint project with Reineke, Franzen and Esposito, which is still ongoing. Our starting point was a theorem of Nakajima that states that quiver Grassmannians associated with Rigid representations of acyclic quivers have positive Euler characteristic. We improve such result by showing further homological properties of such varieties. In case of a Dynkin quiver we show that every quiver Grassmannian admits a cellular decomposition.