

1046-68-1631      **Gunnar Carlsson\*** ([gunnar@math.stanford.edu](mailto:gunnar@math.stanford.edu)), Department of Mathematics, Stanford University, Stanford, CA 94305. *Topology and data*.

We will discuss methods for analyzing the stability of qualitative properties of data sets, such as the presence of loops, cluster decompositions, etc. The methods will involve quiver representations, and constitute an application of theorems of P. Gabriel and V. Kac on certain quiver representations. We will show how barcode output, such as that which occurs in persistent homology, plays a different role in this setting. (Received September 16, 2008)