## 1171-16-84 Alexander H Sistko\* (asistko01@manhattan.edu) and Jaiung Jun. Nice $\mathbb{F}_1$ -representations of quivers. Preliminary report.

To any quiver Q we can associate the category  $\operatorname{Rep}(Q, \mathbb{F}_1)$  of representations over the field with one element. This category acts (in some ways) as a combinatorial degeneration of  $\operatorname{Rep}(Q, k)$ , where k is a field. In this talk, we discuss recent developments in the study of  $\mathbb{F}_1$ -representations of quivers. In particular, we introduce the class of nice  $\mathbb{F}_1$ -representations and discuss their significance for quiver Grassmannians. We also discuss the consequences of our work for the Ringel-Hall algebra of  $\operatorname{Rep}(Q, \mathbb{F}_1)$ . (Received August 08, 2021)