1146-13-337 Youngsu Kim^{*} (yk009@uark.edu), 850 W Dickson St, Fayetteville, AR 72701, and Lance E. Miller and Wenbo Niu. The generic link of a determinantal variety.

We study singularities of the generic link of a determinantal variety. Let $A := \mathbb{A}^n_{\mathbb{C}}$, and let X and Y be reduced equidimensional subschemes of A. We say that X and Y are *linked* via V if there exists a complete intersection V in $X \cap Y$ such that $\mathcal{I}_Y/\mathcal{I}_V \cong \operatorname{Hom}_{\mathcal{O}_A}(\mathcal{O}_X, \mathcal{O}_V)$ and $\mathcal{I}_X/\mathcal{I}_V \cong \operatorname{Hom}_{\mathcal{O}_A}(\mathcal{O}_Y, \mathcal{O}_V)$.

Two linked subschemes share many properties in common. Let X be a variety and Y the generic link of X. Recently, W. Niu showed that the log canonical threshold, lct for short, "improves" under taking the generic link, i.e., lct $Y \ge \text{lct } X$. It is not known if equality holds in general. In this talk, we show that in the case where X is a determinantal variety, then lct X = lct Y. This is joint work with Wenbo Niu and Lance Miller. (Received January 26, 2019)