1142-14-160 **Joaquin Moraga*** (moraga@math.utah.edu). *Good elephants and tigers.*

Given a projective morphism of normal quasi-projective varieties $X \to Z$ such that $X$ has $\epsilon$-log canonical singularities and $K_X$ is ample (resp. anti-ample) over $Z$, it is natural to try to find the smallest $n$ so that the linear system $|nK_X|$ (resp. $|-nK_X|$) contains an element $B$ with *good singularities* over a fixed point $z \in Z$, i.e. the pair $(X, B)$ is $\delta$-log canonical over $z$. Such $B$ will be called a **good tiger** (resp. **elephant**).

The problem of bounding good elephants and/or tigers consists of proving that such $n$ can be bounded by some invariants of $X \to Z$. In the case where $Z = \mathrm{Spec(k)}$, these problems are implied by boundedness results due to Birkar and Hacon-McKernan-Xu respectively. In this talk, we will present some general conjectures in the case that $\dim(Z) \geq 1$ and some partial results towards these conjectures. (Received September 02, 2018)