1125-18-2086   **Tom Braden*** (`braden@math.umass.edu`). *A sufficient condition for a category of perverse sheaves to be highest weight.* Preliminary report.

A number of important categories in representation theory (category $\mathcal{O}$, rational representations of algebraic groups, etc.) have geometric realizations as categories of perverse sheaves on associated geometric spaces. Many of these categories are also highest weight, however up to now there has been no geometric proof of this. Vilonen gave a criterion for a category of perverse sheaves to be highest weight, but in practice it seems to be difficult to apply. We show that for singularities with symplectic resolutions, a torus action can be used to give a more tractable sufficient condition. We show that this condition holds at least for hypertoric varieties, giving another proof of a result of the speaker and Carl Mautner. (Received September 19, 2016)