

1173-13-153

**Tai Ha\*** (tha@tulane.edu). *Saturation bounds for smooth varieties.*

The saturation degree of an ideal  $I$  is the least degree  $a$  from which  $I$  and its saturation (with respect to the maximal homogeneous ideal) agree.

Let  $X$  be a smooth variety and let  $J$  be its defining ideal, generated in degrees  $d_0 \geq \dots \geq d_p$ . We provide bounds for the saturation degrees of powers of  $J$  in terms of the degrees  $d_0, \dots, d_p$ .

This is a joint work with L. Ein and R. Lazarsfeld. (Received September 19, 2021)