1163-16-644   **Hongdi Huang*** (`h237huan@rice.edu`), 2601 S Braeswood Blvd, apt 1104, TX. *Zariski Cancellation Problem.*

The *Zariski cancellation problem* ask: is an affine variety X over an algebraically closed field k having the property that $X \times \mathbb{A}^1 \cong \mathbb{A}^{n+1}$ necessarily isomorphic to $\mathbb{A}^n$? Ring theoretically, one can ask more generally: for R some specific k-algebra, when does $R[x_1, x_2, \cdots, x_n] \cong S[x_1, x_2, \cdots x_n]$ imply that R and S are isomorphic as k-algebras? Recently, there has been a great amount of successful study towards this Zariski cancellation problem. In this talk, we will give an overview of the rich literature and talk about the noncommutative analogues of a cancellation theorem of Abhyankar, Eakin, and Heinzer. (Received September 10, 2020)