

① Determine the A_∞ -structure

$$\text{Ext}_{k[x]/(x^3)}^* (k, k)$$

② Prove that

$k(1 \xrightarrow{\alpha} 2)$ is quasi-hereditary with β and $1 < 2$ and

$B = k(1 \xrightarrow{\alpha} 2)$ is a Borel