

1077-14-1226      **Aravind Asok** (asok@usc.edu) and **Christian Haesemeyer\*** (chh@math.ucla.edu). *Rational points and  $\mathbb{A}^1$ -homotopy theory.*

We discuss how rational points and zero cycles of degree one are detected homologically in  $\mathbb{A}^1$ -homotopy theory, and how this might be used to address the question whether a variety that admits a zero cycle of degree one will have a rational point. (Received September 18, 2011)