

1137-14-359

Elden Elmanto, Marc Hoyois* (hoyois@usc.edu), **Adeel A. Khan, Vladimir Sosnilo** and **Maria Yakerson**. *Motivic infinite loop spaces*.

We prove a recognition principle for motivic infinite \mathbb{P}^1 -loop spaces over an infinite perfect field k of characteristic not 2. This is achieved by developing a theory of *framed motivic spaces*, a motivic analogue of the theory of E_∞ -spaces. As a consequence we obtain a description of infinite \mathbb{P}^1 -loop spaces of \mathbb{P}^1 -suspension spectra of smooth quasi-projective varieties in terms of Hilbert schemes of points in affine spaces. (Received February 07, 2018)