

1154-55-587

Jun Hou Fung* (jhfung@math.harvard.edu), Harvard University, Department of Mathematics,
1 Oxford Street, Cambridge, MA 02138. *Strict units of commutative ring spectra.*

Just as an ordinary commutative ring has a multiplicative group of units, a E_∞ -ring spectrum R also has a spectrum of units gl_1R , which plays an important role for example in twisted cohomology theories. However, these spectra are typically very large, and to understand twists by Eilenberg-Mac Lane spaces or to isolate those units that come from geometry, it sometimes suffices to study the space of *strict units* of R . Previously, Hopkins and Lurie have computed the strict units of Morava E-theories, but much remains unknown about them in general.

In this talk, I will introduce these strict units and illustrate various methods for computing them for other commutative ring spectra R , and how these calculations relate to other interesting questions in homotopy theory. (Received September 07, 2019)