

Algebraic K-Theory Seminar

The cdarc topology

Elden Elmanto (Harvard)

Abstract: The excision problem asks for when a functor defined on schemes converts (pro-)Milnor squares to (pro-)pullback squares. This has computational ramifications; the solution for algebraic K-theory yields a proof of Weibel's conjecture. We give a mechanism for checking Milnor excision using a topology called cdarc topology. This bears an analogous relationship to Bhatt and Mathew's arc topology as the one enjoyed between the Nisnevich topology and the étale topology. We will discuss a theorem which makes precise the idea that " $\text{cdh} + \text{henselian-}\mathbf{v}\text{-excision} = \text{Milnor excision}$." An application includes cases of Milnor excision for motivic spectra. This is joint work with Marc Hoyois, Shane Kelly and Ryomei Iwasa.

Wednesday, November 20 at 3:00 PM in 1227 SEO