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„Vanishing Lines and Periodicity in Motivic Homotopy Theory over  $\mathbb{C}$ .“

Abstract:

The classical Nilpotence and Periodicity theorems in stable homotopy theory lead to a satisfying classification of possible nonnilpotent self-maps of finite spectra.

In motivic homotopy theory over  $\mathbb{C}$ , the obvious analogue can't hold. For example, the Hopf map  $\eta$  is not nilpotent here. By work of Gheorghe, this is part of an infinite family of self-maps, all detected by exotic motivic K-theories.

In this talk, I want to discuss a generalization of these results leading to a bigger class of self-maps, exotic K-theories and an associated chromatic filtration on motivic homotopy groups over  $\mathbb{C}$ .