

# THE CHROMATIC BEHAVIOUR OF ALGEBRAIC K-THEORY

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Abstract: There is a classic theorem of Waldhausen stating that algebraic K-theory preserves under certain hypotheses rational equivalences of ring spectra. From the viewpoint of chromatic homotopy theory, rationalization is just the zeroth step in an infinite ladder of localizations. I will report on joint work with Land and Tamme, where we extend Waldhausen's theorem to higher chromatic localizations. This has a number of consequences, in particular about the  $K(1)$ -local K-theory of rings and red shift phenomena.