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Title: Algebraic K-theory and chromatic homotopy theory

Abstract: The interactions between K-theory and chromatic homotopy theory began in the work of Thomason, who showed that K-theory simplifies greatly after $K(1)$ -localization, thanks to étale hyperdescent and rigidity results. More recently, there has been much activity around studying higher height localizations of the algebraic K-theory of ring spectra, which is the subject of chromatic redshift. Much progress has been made, using methods of topological cyclic homology, but many basic questions are entirely unknown. I will give an introduction to this circle of ideas.