Summary: In this paper we continue the work of using the recent advances in algebraic $K$-theory to extend computations done in characteristic $p$ to the mixed characteristic setting using perfectoid rings. We extend the work of Hesselholt-Nikolaus in [18] on the algebraic $K$-Theory of cuspidal curves. We consider both cuspidal curves and the $p$-completion of cuspidal curves. Along the way we also study the $K$-theory of the $p$-completed affine line over a perfectoid ring.

MSC:

19Dxx Higher algebraic $K$-theory
55Pxx Homotopy theory
14Fxx (Co)homology theory in algebraic geometry

Keywords:

$K$-theory; topological cyclic homology; syntomic cohomology; prismatic cohomology

Full Text: DOI arXiv

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