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THH and semi-stable reduction.

In contrast to the localization sequences for algebraic K-theory constructed by Quillen, the localization sequences of Hesselholt-Madsen/Blumberg-Mandell for THH involved a mysterious term connected to logarithmic differentials. However, it can be questioned whether there is a geometric picture underlying the sequence. Crystalline cohomology's connection to THH leads one to conjecture extra structures on the logarithmic term that gives it an algebro-geometric meaning.

The speaker constructs a relative version of \log THH via a Mokrane-Steenbrink complex and uses it to suggest that the localization sequences reflect the geometry of schemes with semi-stable reduction. (Received January 22, 2018)