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**Vigleik Angeltveit\*** ([vigleik@math.uchicago.edu](mailto:vigleik@math.uchicago.edu)), University of Chicago, Department of Mathematics, 5734 E University Ave, Chicago, IL 60637. *Uniqueness of Morava K-theory*. Preliminary report.

Classical obstruction theory seemingly produces uncountably many A-infinity structures on the Morava K-theory spectrum  $K(n)$ . We show that these A-infinity structures are all equivalent, using a Bousfield-Kan spectral sequence converging to the homotopy groups of the moduli space of A-infinity ring spectra equivalent to  $K(n)$ . This spectral sequence has infinitely many differentials, and to show that all the relevant classes die we study the connective Morava K-theory spectrum  $k(n)$  and use the theory of Postnikov towers and S-algebra k-invariants developed by Dugger and Shipley. (Received September 11, 2007)