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Jean-Louis Colliot-Thélène, David Harbater, Julia Hartmann*
(hartmann@math.upenn.edu), **Daniel Krashen, R. Parimala** and **V. Suresh**. *Local-Global principles for tori over arithmetic function fields.*

We study local-global principles for tori over arithmetic function fields (i.e., one variable function fields over complete discretely valued fields). We show that for tori defined over the underlying discrete valuation ring, the obstruction to such local-global principles can be described using techniques from patching. As a consequence, we obtain a vanishing criterion as well as a rather explicit description in interesting cases where the obstruction is not trivial. A key ingredient is the use of flasque tori and their cohomological properties. (Received January 26, 2020)