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Jean-Louis Colliot-Thélène and **David Harbater*** (harbater@math.upenn.edu), Department of Mathematics, University of Pennsylvania, Philadelphia, PA 19104-6395, and **Julia Hartmann**, **Daniel Krashen**, **R. Parimala** and **V. Suresh**. *Local-global principles over semi-global fields*. Preliminary report.

Local-global principles are central in the study of algebraic objects such as quadratic forms and central simple algebras, over global fields. Such principles can typically be reformulated in terms of the existence of rational points on homogeneous spaces under algebraic groups, especially on principal homogeneous spaces (torsors). This talk will discuss analogous principles over semi-global fields, i.e. function fields of curves over complete discretely valued fields. In a number of cases we show that local-global principles hold in this situation; in other cases we compute the obstruction, which is analogous to the Tate-Shafarevich group. This work is joint with J. Hartmann, D. Krashen, J-L. Colliot-Thélène, R. Parimala, and V. Suresh. (Received September 07, 2020)