1147-11-734 **Paul Vojta*** (vojta@math.berkeley.edu), Department of Mathematics, 970 Evans Hall #3840, University of California, Berkeley, CA 94720-3840. *Diophantine approximation over arithmetic* function fields. Preliminary report.

In 2000, A. Moriwaki formulated a theory of heights for arithmetic function fields (fields finitely generated over \mathbb{Q} , or equivalently function fields of arithmetic varieties). This theory satisfies the standard properties of heights, including Northcott's theorem. This is in line with S. Lang's philosophy that most diophantine properties over number fields should also extend to such fields (see, for example, his conjectures on "Mordellicity").

Recently I have shown that Roth's theorem holds for such fields (using Moriwaki's framework). I will discuss this result, as well as current work on extending this to Schmidt's Subspace Theorem and beyond. (Received January 28, 2019)