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**Alexandra Shlapentokh\*** ([shlapentokha@ecu.edu](mailto:shlapentokha@ecu.edu)), Department of Mathematics, East Carolina University, Greenville, NC 27858. *Defining Valuation Rings over Function Fields of Characteristic 0*. Preliminary report.

Given a function field  $K$  of characteristic 0 and a prime (or a valuation) of this field, we discuss how to construct an existential definition of the subring of  $K$  containing functions without a pole at the given prime. This problem was solved for a class of rational function fields in 1992 by Kim and Roush but was not completely generalized to algebraic extensions until now. (Received January 10, 2017)