

1100-12-138

Andy R Magid* (amagid@ou.edu), Department of Mathematics, University of Oklahoma,
Norman, OK 73072. *Differential étale extensions*. Preliminary report.

The étale property for commutative algebra asserts that ring homomorphisms to square-zero extensions lift. We show that a similar result obtains for certain simple differential rings, although the requirement is more stringent than differentially simple, and we show by example that not all Picard–Vessiot rings have this “differential étale” property. The requirement is met, however, for Picard–Vessiot rings of Picard–Vessiot closures. (Received February 05, 2014)