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**Christopher James Wilson\*** (cjwilson@butler.edu), Jordan Hall 270, Butler University, 4600 W. Sunset Avenue, Indianapolis, IN 46208. *Orders containing a weak crossed product order over a discrete valuation ring.* Preliminary report.

A *weak* crossed product over a discrete valuation ring is one whose cocycle is allowed to take any nonzero value (so nonunit cocycle values are permitted).

Let  $R$  be a discrete valuation ring with field of fractions  $F$ , and let  $S$  be the integral closure of  $R$  in a tamely ramified Galois extension  $K$  of  $F$ . We give results and examples concerning those orders in the crossed product algebra  $\sum Kx_\sigma$  that contain a weak crossed product order  $\sum Sx_\sigma$  in the case that  $S$  is local. (Received September 24, 2012)