1048-13-269 **K Alan Loper*** (`lopera@math.ohio-state.edu`), 1179 University Drive, Newark, OH 43055.
Generalized rings of integer-valued polynomials. Preliminary report.

Let Z be the ring of integers and Q the field of rational numbers. Suppose that T is a ring which contains Z and A is a ring which contains both Q and T. Then if f(X) is a polynomial in Q[X] we can consider the element f(t) where t is an element of T. We then consider the ring of all polynomials in Q[X] which map T to itself. This ring is well-defined even if T has zero-divisors, or is not commutative. Easy, nontrivial examples can be obtained by letting T be the ring of integral quaternions, the ring of n by n integral matrices, or the ring of integers in a finite algebraic extension of Q. We investigate when such rings are Prufer domains. (Received February 09, 2009)