Meeting: 1003, Atlanta, Georgia, SS 32A, AMS Special Session on Arithmetic Algebraic Geometry, I

1003-16-854 **H E Nordstrom*** (nordstro@noether.uoregon.edu), Department of Mathematics, 1222 University of Oregon, Eugene, OR 97403-1222. *Associated Primes over Ore Extensions.*

For a right R-module, M, we compute the set of associated primes of $M[x;\sigma]$ over the Ore extension $R[x;\sigma]$ for any surjective endomorphism σ of R. This result leads to necessary and sufficient conditions under which the associated primes of $M[x;\sigma]$ are precisely the extensions of the associated primes of M. We relate our results to previous methods of computing the prime ideals of $R[x;\sigma]$ and include several illustrative examples. (Received September 30, 2004)