Meeting: 1004, Bowling Green, Kentucky, SS 11A, Special Session on Commutative Ring Theory

1004-13-97 **David F. Anderson*** (anderson@math.utk.edu), Mathematics Department, University of Tennessee, Ayres Hall, Knoxville, TN 37996, and **Gyu Whan Chang** (whan@incheon.ac.kr), Mathematics Department, University of Incheon, 402-749 Incheon, South Korea. *Almost splitting sets in integral domains*. Preliminary report.

A saturated multiplicative subset S of an integral domain D is called an almost splitting set if for each nonzero d in D, some power of d may be written as st with s in S and t in D which is v-coprime to each element of S. We show that D - 0 is an almost splitting set in D[X] iff D is a UMT-domain with Cl(D[X]) torsion, iff every upper to zero in D[X] contains a primary element. We also show that D[X] is an almost GCD-domain iff D is an almost GCD-domain with Cl(D[X]) torsion. (Received January 19, 2005)