

1023-13-817

Lucian F Sega* (sega@purdue.edu), 212 Halsey Drive Apt. 7, West Lafayette, IN 47906. *Ideal Class Semigroups of Overrings.*

Let R be an integral domain and let T be an overring of R . There is a canonical semigroup homomorphism between the ideal class semigroup of R and the ideal class semigroup of T . We investigate conditions under which this semigroup homomorphism is surjective and we apply the results we obtain to the study of overrings of Clifford regular domains. We recover some known results of S. Bazzoni and we prove in certain more general situations that the Clifford regular property is inherited by an overring. In particular, we prove that if R is a Clifford regular domain such that the integral closure of R is a fractional overring, then every overring of R is Clifford regular. We also characterize among Clifford regular domains the ones that are stable. (Received September 22, 2006)