1083-13-65 Sang B. Lee* (sblee@smu.ac.kr), Department of Mathematics Education, Sangmyung University, Seoul, 110-743, South Korea. Absolutely pure modules over certain domains. Preliminary report.

Absolutely pure modules are defined as modules that are pure in its injective hull. They are divisible in general and coincide with divisible modules if the underlying rings are Pruefer domains. Also they are exactly injective modules over Noetherian domains. We consider a class of domains which are strictly weaker than Pruefer domains, the domains over which every injective modules have weak dimension less than or equal to 1. We first give equivalent definition of these domains and then try to characterize absolutely pure modules among divisibles modules employing the concepts of weak-injective modules introduced by the author.

We also look into several open problems concerning dual modules in some sense to Absolutely pure modules, i.e., pure-injective modules. (Received August 16, 2012)