1145-13-1517 **Simplice Tchamna*** (`simplice.tchamna@gcsu.edu`), Department of Mathematics, Georgia College, Campus Box: 017, Milledgeville, GA 31061. *A study of m-canonical ideals.*

We study properties of multiplicative canonical (or m-canonical) ideals of ring extensions. Let $R \subseteq S$ be a ring extension. A nonzero S-regular ideal I of R is called an *m-canonical ideal* of the extension $R \subseteq S$ if $(I :_S (I :_S J)) = J$ for all S-regular ideal J of R. We study multiplicative canonical ideals for pullback diagrams, and we use the notion of multiplicative canonical ideal to characterize Prüfer extensions. (Received September 22, 2018)