

SEMILATTICE ORDERED SEMI-RINGS WITH APARTNESS

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ABSTRACT. The logical environment of this article are the Intuitionistic logic – the logic without the principle TND and the Bishop’s constructive algebra. In this paper, we introduce and analyses the concept of semilattice ordered semi-rings with apartness. In addition we introduce and analyse concepts of co-ideals and co-filters in such semi-rings. The construction of these concepts, as duals of ideals and filters in semi-rings, enable the cancellativity of co-order relation in such semi-ring with respect to the apartness.

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