

## On semi ring bornologies

### ABSTRACT

Our main focus in this work is to introduce new structure bornological semi rings. This generalizes the theory of algebraic semi rings from the algebraic setting to the framework of bornological sets. We give basic properties for this new structure. As well as, We study the fundamental construction of bornological semi ring as product, inductive limits and projective limits and their extensions on bornological semi ring. Additionally, we introduce the category of bornological semi rings and study product and pullback (fiber product) in the category of bornological semi rings.

**Keyword:** Bornological semi ring; Structure