

Application of Soft Sets to Non-Associative Rings

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Abstract : Molodtstove developed the theory of soft sets which can be seen as an effective tool to deal with uncertainties. Since the introduction of this concept, the application of soft sets has been restricted to associative algebraic structures (groups, semi groups, associative rings, semi-rings etc.). Acceptably, though the study of soft sets, where the base set of parameters is a commutative structure, has attracted the attention of many researchers for more than one decade. But on the other hand there are many sets which are naturally endowed by two compatible binary operations forming a non-associative ring and we may dig out examples which investigate a non-associative structure in the context of soft sets. Thus it seems natural to apply the concept of soft sets to non-commutative and non-associative structures. In present paper, we make a new approach to apply Molodtsoves notion of soft sets to LA-ring (a class of non-associative ring). We extend the study of soft commutative rings from theoretical aspect.

Keywords : soft sets, LA-rings, soft LA-rings, soft ideals, soft prime ideals, idealistic soft LA-rings, LA-ring homomorphism

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