A STUDY OF FUZZY IDEALS OF REGULAR AND SIMPLE ORDERED SEMIRINGS

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ABSTRACT. We introduce the notions of a fuzzy ideal, a fuzzy bi-ideal, a fuzzy quasi ideal and a fuzzy interior ideal of an ordered semiring. We characterize the regular ordered semiring and the simple ordered semiring in terms of fuzzy ideals. We prove that if M is a regular ordered semiring then fuzzy ideals, fuzzy left (right) ideals, fuzzy quasi ideals, fuzzy bi-ideals, fuzzy interior ideals of M are equivalent.

ACKNOWLEDGEMENTS

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Received 20 June 2024

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