

New Operations on Partial Abelian Monoids Defined by Preideals

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Abstract: We consider partial abelian monoids, in particular generalized effect algebras. From the given structures, we construct new ones by introducing a new operation \oplus , which is given by restriction of the original partial operation $+$ with respect to a special subset called *preideal*. We bring some derived properties and characterizations of these new built structures, supporting the results by illustrative examples.

Keywords: partial abelian monoid; generalized effect algebra; preideal; Riesz decomposition property; central element;

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