On a representation theory of integral, residuated, commutative ℓ-monoids

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We investigate semirings of operators (endomorphisms) [3] of a $\vee$-semilattice and a $\wedge$-semilattice of a bounded lattice. We show conditions that guarantee unique extensions of a semiring of operators respectively to an integral, residuated, commutative ℓ-monoid [2], BL-algebra and MV-algebra [1]. We recall the notion of a semi-linear vector space as is a couple of two dually ordered left semimodules over an idempotent semiring with residuated scalar multiplications (see, e.g. [4]), and discuss backgrounds of the representation theory of integral, residuated, commutative ℓ-monoids.

References

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