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Quantum Logics of Idempotents of Unital Rings

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Abstract

© 2014, Springer Science+Business Media New York. We introduce some new examples of quantum logics of idempotents in a ring. We continue the study of symmetric logics, i.e., collections of subsets generalizing Boolean algebras and closed under the symmetric difference.

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Keywords

Additive mapping, Boolean algebra, C^* -algebra, Idempotent, Orthomodular poset, Positive functional, Projection, Quantum logic, Set representation, State, Symmetric difference, Trace, Von Neumann algebra