

Tensor product of distributive sequential effect algebras and product effect algebras

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Abstract

A distributive sequential effect algebra (DSEA) is an effect algebra on which a distributive sequential product with natural properties is defined. We define the tensor product of two arbitrary DSEA's and we give a necessary and sufficient condition for it to exist. As a corollary we obtain the result (see [8]) that the tensor product of a pair of commutative sequential effect algebras exists if and only if they admit a bimorphism. We further obtain a similar result for the tensor product of a pair of product effect algebras.

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