Milan Matoušek Orthomodular lattices with fully nontrivial commutators

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Abstract: An orthomodular lattice L is said to have fully nontrivial commutator if the commutator of any pair $x,y\in L$ is different from zero. In this note we consider the class of all orthomodular lattices with fully nontrivial commutators. We show that this class forms a quasivariety, we describe it in terms of quasiidentities and situate important types of orthomodular lattices (free lattices, Hilbertian lattices, etc.) within this class. We also show that the quasivariety in question is not a variety answering thus the question implicitly posed in [4].

Keywords: orthomodular lattice, commutator, quasivariety

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