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Title: Subalgebras of orthomodular lattices

Abstract: Recent approaches to the foundations of quantum mechanics initiated by Isham and others make use of the topology determined by the abelian subalgebras of a von Neumann algebra to treat various quantum mechanical concepts as sheafs of structures that locally behave as the classical counterparts. This leads to our investigation of properties of the poset of abelian subalgebras of a von Neumann algebra, or more generally, of the poset of Boolean subalgebras of an orthomodular lattice.