

Pasting of lattice ordered effect algebras

Yongjian Xie

Shaanxi Normal University, China
and
New Mexico State University

Abstract: In this talk, we present techniques for constructing a lattice-ordered effect algebra using a given family of MV-effect algebras. First, we introduce the Greechie diagrams of the pastings of a family of MV-effect algebras. As application of the Greechie diagrams, we provide some sufficient conditions for pasting a lattice-ordered effect algebra using a family of MV-effect algebras. Especially, we illustrate a kind of technique of how to obtain a lattice-ordered effect algebra by substituting the atoms of an orthomodular lattice with the lattice-ordered effect algebras. Finally, we prove a version of the “Loop Lemma” for MV-effect algebras pasting.