

# Riesz MV-algebras and their logic

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(joint work with Antonio Di Nola and Serafina Lapenta)

## Abstract

We present a conservative extension of Łukasiewicz  $\infty$ -valued propositional logic, obtained by adding a family of unary operators that are interpreted as multiplications by scalars from  $[0, 1]$ . The corresponding algebraic structures, Riesz MV-algebras, are, up to isomorphisms, unit intervals in Riesz spaces with strong unit. We present the basic theory, as well as recent developments.

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