

**Coecke, Bob**

**Quantum logic in intuitionistic perspective.** (English) Zbl 0999.03058  
Stud. Log. 70, No. 3, 411-440 (2002).

This paper tries to reconcile a non-distributive orthocomplemented lattice (intended for physical properties) on the one hand and a distributive pseudocomplemented lattice (intended for logical propositions) on the other. The author proposes a complete Heyting algebra equipped with a particular kind of closure operator (called the operational resolution) as a unifying framework. In this context he re-discovers a specification and a refinement of *G. Bruns* and *H. Lakser's* [Can. Math. Bull. 13, 115-118 (1970; Zbl 0212.03801)] on injective hulls of meet-semilattices.

Reviewer: [Hirokazu Nishimura \(Tsukuba\)](#)

**MSC:**

- 03G12 Quantum logic
- 06C15 Complemented lattices, orthocomplemented lattices and posets
- 81P10 Logical foundations of quantum mechanics; quantum logic (quantum-theoretic aspects)
- 06D20 Heyting algebras (lattice-theoretic aspects)

Cited in **1** Review  
Cited in **8** Documents

**Keywords:**

[orthocomplemented lattice](#); [complete Heyting algebra](#); [closure operator](#); [injective hulls](#)

**Full Text:** [DOI](#) [arXiv](#)