



a review of Paraconsistent ideas in quantum logic by Dalla Chiara, Maria Luisa; Giuntini, Roberto

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**Dalla Chiara, Maria Luisa; Giuntini, Roberto**

**Paraconsistent ideas in quantum logic.** (English) Zbl 0969.03070  
Synthese 125, No. 1-2, 55-68 (2000).

Birkhoff and von Neumann's quantum logic is sharp in the sense that propositions correspond to exact possible properties of the physical system under investigation. Unsharp approaches to quantum theory were proposed by *G. Ludwig* [Foundations of quantum mechanics, Vol. 1, Springer, Berlin (1983; [Zbl 0509.46057](#))] and developed by Kraus, Davies, Mittelstaedt, Busch, Lahti, Bugajski, Beltrametti, Cattaneo and many others. This paper surveys effect structures and unsharp quantum logics, to which the authors themselves have contributed much.

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

**MSC:**

[03G12](#) Quantum logic

[03B53](#) Paraconsistent logics

[81P10](#) Logical foundations of quantum mechanics; quantum logic (quantum-theoretic aspects)

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