

情報電子工学科工学科 論文発表

題名	Proof theory of paraconsistent quantum logic (Journal of Philosophical Logic 47 (2), pp. 301-324, Springer, 2018)
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概要	<p>Paraconsistent quantum logic, a hybrid of minimal quantum logic and paraconsistent four-valued logic, is introduced as Gentzen-type sequent calculi, and the cut-elimination theorems for these calculi are proved. This logic is shown to be decidable through the use of these calculi. A first-order extension of this logic is also shown to be decidable. The relationship between minimal quantum logic and paraconsistent four-valued logic is clarified, and a survey of existing Gentzen-type sequent calculi for these logics and their close relatives is addressed.</p>