情報電子工学科　論文発表

題名	Proof theory of paraconsistent quantum logic
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概　要	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.