

情報電子工学科 論文発表

題名	Duality in some intuitionistic paraconsistent logics
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概要	Duality in constructive (or intuitionistic) logics is an important basic property since the dual counterpart of a given constructive logic can obtain a refutation or falsification of the information or knowledge which is described by the given logic. In this paper, duality in some intuitionistic paraconsistent logics is investigated. A constructive connexive logic (connexive logic for short) and Nelson's paraconsistent four-valued logic are addressed as an example of such intuitionistic paraconsistent logics. A new logic called dual connexive logic (dCN), which is the dual counterpart of the connexive logic (CN), is introduced as a Gentzen-type sequent calculus. Some theorems for embedding dCN into CN and vice versa, which represent the duality between them, are shown. Similar embedding results cannot be shown for Nelson's paraconsistent four-valued logic. But, similar embedding results can be shown for an extended Nelson logic with co-implication.