情報電子工学科　論文発表

題名	Relating first-order monadic omega-logic, propositional linear-time temporal logic, propositional generalized definitional reflection logic and propositional infinitary logic
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概　要	The relationship among first-order monadic omega-logic (MOL), propositional (until-free) linear-time temporal logic (LTL), propositional generalized definitional reflection logic (GDRL) and propositional infinitary logic (IL) is clarified via embedding theorems. A theorem for embedding a Gentzen-type sequent calculus MOωfor MOL into a Gentzen-type sequent calculus LTω for LTL is proved. The cut-elimination theorem for MOω is proved using this embedding theorem. MOL is also shown to be decidable through the use of this embedding theorem. Theorems for embedding LTω into MOω and MOω into a Gentzen-type sequent calculus LKω for IL are also proved. Moreover, a theorem for embedding MOω into a Gentzen-type sequent calculus GDω for GDRL and a theorem for embedding LTω into GDω are proved.