

情報電子工学科 論文発表

題名	Paraconsistent sequential linear-time temporal logic: Combining paraconsistency and sequentiality in temporal reasoning
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概要	Inconsistency-tolerant temporal reasoning with sequential (i.e., ordered or hierarchical) information is gaining increasing importance in computer science applications. A logical system for representing such reasoning is thus required for obtaining a theoretical basis for such applications. In this paper, we introduce a new logic called paraconsistent sequential linear-time temporal logic (PSLTL), which is an extension of the standard linear-time temporal logic (LTL). PSLTL can appropriately represent inconsistency-tolerant temporal reasoning with sequential information. The cut-elimination, decidability, and completeness theorems for PSLTL are proved in this paper.