研究室名	上出哲広研究室　論文発表

題名	Modal and intuitionistic variants of extended Belnap--Dunn logic with classical negation
掲載雑誌	Journal of Logic, Language and Information 30(3), pp. 491-531, Springer, 2021.
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概要	In this study, we introduce Gentzen-type sequent calculi BDm and BDi for a modal extension and an intuitionistic modification, respectively, of De and Omori's extended Belnap--Dunn logic BD+ with classical negation. We prove theorems for syntactically and semantically embedding BDm and BDi into Gentzen-type sequent calculi S4 and LJ for normal modal logic and intuitionistic logic, respectively. The cut-elimination, decidability, and completeness theorems for BDm and BDi are obtained using these embedding theorems. Moreover, we prove the Glivenko theorem for embedding BD+ into BDi and the McKinsey--Tarski theorem for embedding BDi into BDm.