▶ JUI-LIN LEE, The classical model existence theorem in subclassical predicate logics II. Center for General Education and Department of Computer Science & Information Engineering, National Formosa University, No. 64, Wunhua Rd., Huwei Township, Yunlin County 632, Taiwan.

*E-mail*: jlleelogician@gmail.com.

In [2] it is proved that there are weak subclassical predicate logics (which are classically sound but weaker than the first-order logic) which also satisfy the Classical Model Existence property (CME for short): Every consistent set has a classical model. In this paper we improve the result in [2] to some subclassical predicate logics with weaker propositional parts (for example, some weak extensions of the implicational linear logic BCI). Two types of approaches (by prenex normal form construction or by Hintikka style construction) will be considered.

We will also discuss whether there is a weakest subclassical predicate logic satisfies CME. (Note that in [1] it is proved that there exists a weakest subclassical propositional logic which characterizes CME. However, this depends on which consistency is chosen and what kind of proof rules are allowed.)

Keywords: classical model existence, subclassical predicate logic, BCI

[1] JUI-LIN LEE, Classical model existence and left resolution, Logic and logical philosophy, vol. 16 (2007), no. 4, pp.333–352.

[2] JUI-LIN LEE, The classical model existence theorem in subclassical predicate logics I, Towards Mathematical Philosophy, Trends in Logic, 28 (David Makinson, Jacek Malinowski, and Heinrich Wansing, editors), Springer, 2008, pp. 178–199.