In this book set theory INC# based on intuitionistic logic with restricted modus ponens rule is proposed. It proved that intuitionistic logic with restricted modus ponens rule can to save Cantor naive set theory from a triviality. Considering only pure sets, the naive set comprehension principle says, for any condition, that there is a set containing all and only the sets satisfying this condition. In first-order logic, this can be formulated as the following schematic principle, where \( \phi \) may be any formula in which \( \phi \) does not occur freely: \( \exists x \forall y (y \in x \iff \phi) \). 1.1. Russell’s paradox shows that the instance obtained by letting \( \phi \) be \( x \in x \) is inconsistent in classical logic. One response to the paradox is to restrict naive set comprehension by ruling out this and other problematic instances: only for each of some special conditions is it claimed there is a set containing all and only the sets satisfying the condition.

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