

- AMIRHOSSEIN AKBAR TABATABAI, AND RAHELEH JALALI, *Feasible admissible rules in intuitionistic modal logics*.
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In this talk, we introduce a general family of sequent-style calculi over the modal language and its fragments to capture the essence of all constructively acceptable systems. Calling these calculi *constructive*, we show that any strong enough constructive sequent calculus, satisfying a mild technical condition, feasibly admits all Visser's rules, i.e., there is a polynomial time algorithm that reads a proof of the premise of a Visser's rule and provides a proof for its conclusion. As a positive application, we show the feasible admissibility of Visser's rules in several sequent calculi for intuitionistic modal logics, including CK, IK and their extensions by the modal axioms T, B, 4, 5, the modal axioms of bounded width and depth and the propositional lax logic. On the negative side, we show that if a strong enough intuitionistic modal logic (satisfying a mild technical condition) does not admit at least one of Visser's rules, then it cannot have a constructive sequent calculus. Consequently, no intermediate logic other than IPC has a constructive sequent calculus.