

POP Seminar

Constructive Provability Logic

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Abstract:

Constructive provability logic is a structural proof theory for modal logic. It bears a superficial resemblance to the intuitionistic Kripke semantics for modal logic as presented by Alex Simpson, but it has different judgmental principles and admits only certain accessibility relations. As a result, it validates the fundamental axiom $\Box(\Box A \rightarrow A) \rightarrow \Box A$ of Gödel-Löb provability logic, a modal logic that has not received much attention as an intuitionistic modal logic. We believe that constructive provability logic can be used to give a fully proof-theoretic justification for negation in a logic programming.

This is joint work with Bernardo Toninho and Frank Pfenning that will be presented at Intuitionistic Modal Logic and Applications in 2011.

PLEASE NOTE SPECIAL START TIME

Wednesday, May 11, 2011
Gates Hillman Center 9115
4:00 – 5:00 p.m.