

LOGIKSEMINARIET STOCKHOLM–UPPSALA

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Internalising modified realisability in constructive type theory

Modified realisability interpretation is a method for giving a constructive interpretation of intuitionistic logical systems into simple type structures. The method is used, for instance, in the proof assistants Minlog and Coq for extracting programs from proofs. These programs are to large extent free from the computationally irrelevant parts that might be present in programs arising from direct interpretations into constructive type theory. The realisability interpretation requires a separate proof of correctness, which is usually left unformalised.

In this talk we present a completely formalised modified realisability interpretation carried out in the proof support system Agda/Alfa. One difference from usual interpretations as in Minlog is that the logic interpreted goes beyond first order logic: it is a (constructively) infinitary logic, which arises naturally from the type-theoretic notion of universe.

OBS TID OCH LOKAL!

Onsdag 16 februari kl. 9.30–11.15,
sal 6002 (hus 6), MIC,
Polacksbacken, Uppsala.

<http://www.math.su.se/~jesper/seminarier/>