Logikseminariet Stockholm–Uppsala

Jouko Väänänen, Helsingfors

Dependence Logic

Dependence logic is an extension of first order logic, in which dependence of variables on each other is a basic atomic concept. We give an overview of this logic, its properties, and its applications, from database theory to set theory.

Onsdag 6 december kl. 10.30,
sal 64119, Ångströmlaboratoriet, Uppsala.

Dag Normann, Oslo

Domain theory based hierarchies of total functionals

In this lecture we will discuss the relationship between three typed hierarchies of total objects, the classical Kleene-Kreisel continuous functionals (the KK-functionals) and two hierarchies over the reals. One is based on the closed interval representation and the other on the negative binary digit representation, and both are based on domain theory for forming objects of higher type. The key problem under investigation is wether the two hierarchies over the reals coincide. We will see that this coincidence problem has a counterpart as a topological problem about the KK-functionals As a technical lemma it is shown that there are topological embeddings of the KK-functionals into both hierarchies over the reals.

We will go into the proofs in some depth, but do not intend to give all details.

Torsdag 7 december, kl. 13.15,
sal 11167, Ångströmlaboratoriet, Uppsala.

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