MATEMATISKA INSTITUTIONEN
STOCKHOLMS UNIVERSITET
Avd. Matematik

SJÄLVSTÄNDIGT ARBETE I MATEMATIK

Onsdagen den 2 juni kl. 10.00–11.00 presenterar Tom Everitt sitt arbete "Automated Theorem Proving" (15 högskolepoäng, grundnivå).

Handledare: Rikard Bøgvad

Plats: Sal 21, hus 5, Kräftriket

Abstract: The calculator was a great invention for the mathematician. No longer was it necessary to spend the main part of the time doing tedious but trivial arithmetic computations. A machine could do it both faster and more accurately. A similar revolution might be just around the corner for proof searching, the perhaps most time consuming part of the modern mathematician's work. In this essay we present the Resolution procedure, an algorithm that finds proofs for statements in propositional and first-order logic. This means that any true statement (expressible in either of these logics), in principle can be proven by a computer. In fact, there are already practically usable implementations available; here we will illustrate the usage of one such program, Prover9, by some examples. Just as many other theorem provers, Prover9 is able to prove many non-trivial true statements surprisingly fast.

Alla intresserade är välkomna!