

Re: solving SAT: generating extended resolution proofs using techniques for resolution?

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What is "Extended resolution"? Please give a definition or source of definition.

Thomas Li

"Will Naylor" <pub@willnaylor.com> wrote in message
news:10veflhfkati29@corp.supernews.com...

- > *The most successful techniques for solving SAT to date*
- > *work by searching for resolution refutations [1], [2], [3]. It is well*
- > *known that resolution refutations are exponential length*
- > *for some rather trivial problems (pigeon-hole, reordering XOR,*
- > *reordering addition, etc).*
- >
- > *Extended resolution is resolution allowing definition*
- > *of new boolean variables. There are no problems in NP which*
- > *are known to require exponential length extended resolution*
- > *refutations (or at least, I do not know of any).*
- > *So I have been trying to find a way to extend the techniques*
- > *which work so well at finding short resolution refutations to find*
- > *short extended resolution refutation.*
- >
- > *I would appreciate it if people could post advice for me*
- > *or references or results which might be helpful to my*
- > *quest.*
- >
- > *References:*
- >
- > *[1] Joao Silva, Karem Sakallah: GRASP – A New Search Algorithm for*
- > *Satisfiability,*
- > *1996 ICCAD proceedings*
- >
- > *[2] Matthew Moskewicz, Conor Madigan, et al: Chaff – Engineering an*
- > *Efficient SAT Solver*
- >
- > *[3] Evgueni Goldberg, Yakov Novikov: BerkMin: a Fast and Robust Sat-Solver*
- >

sci.math.symbolic: Re: solving SAT: generating extended resolution proofs using techniques for resolution?

> – *Will Naylor*

> *email: pub@willnaylor.com*