Review of: "Exploiting Structure: A Survey and Analysis of Structures and Hardness Measures for Propositional Formulas"

Venkatesh Raman[1]

1 Institute of Mathematical Sciences

Potential competing interests: No potential competing interests to declare.

Interesting article. More details in Section 3.2 on how difficult it is to determine these measures, and how exactly they correlate with the complexity of satisfying the formula would have been more useful.

One important technical point: It is mentioned in Section 1 and in the para before Definition 2.7 that it is “difficult” to give a general algorithm (that is efficient for all instances) for an NP problem.

a) Make it clear that “efficient” means “polynomial time”.

b) Also such a statement is true for an NP *complete* or NP *hard* problem, not for an NP problem. In fact P is a subset of NP, so every problem in P has a polynomial time algorithm and they are trivially in NP. So your statement is true only for an NP hard or complete problem, it is a serious technical mistake.