Average case analysis of NP-complete problems: why so many algorithms have a $n^{\ln n}$ complexity?

Cyril Banderier (Affiliation: Univ Paris 13/CNRS)

We explore a class of recurrences (linear, but involving an unbounded amount of previous terms) which mimicks the behaviour of many algorithms, and possible improvements of them. We prove that the expected cost of these algorithms then turns out to be of the less common asymptotic order $n^{c \ln n}$. Also we collect many instances of random structures where such an order appears, from algorithmics to analysis, from probability to algebra. This gives another insight on what could be the "true complexity landscape" of typical NP-complete problems.

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