

From Parallel SAT to Distributed SAT

Youssef Hamadi
Microsoft Research
7 JJ Thomson Avenue
Cambridge United Kingdom
LIX École Polytechnique
F-91128 Palaiseau, France
youssefh@microsoft.com

1 Summary

This tutorial will present an overview of parallelism in SAT. It will start with a presentation of classical divide and conquer techniques, discuss their ancient origin and compare them to more recent portfolio-based algorithms. It will then present the impact of clause-sharing on their performances and discuss various strategies used to control the communication overhead. A particular technique used to control the classical diversification/intensification tradeoff will also be presented. Finally, perspectives will be given which will relate the current parallel SAT technologies to the expected evolution of computational platforms, leading to distributed SAT solving scenarios.

References

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