

Benchmarking Linear Logic Proofs

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Benchmarking automated theorem proving (ATP) systems using standardized problem sets is a well-established method for measuring their performance. The availability of these benchmarks for non-classical logics is very limited, but we recently proposed such a library for Girard’s (propositional) intuitionistic linear logic. In this talk I want to build on this previous work, to propose a new use for benchmarking proofs. I want to use the computer generated proofs we assembled before, to investigate translations between Kleene’s intuitionistic theorems in his monograph “Introduction to Metamathematics” and their possible versions in Linear Logic.

References

- [1] CARLOS OLARTE, VALERIA DE PAIVA, ELAINE PIMENTEL, GISELLE REIS, *The ILLTP Library for Intuitionistic Linear Logic*, Proceedings of Linearity-TLLA 2018, Oxford, UK.