

Title:

(Im)possibility results in Proof Complexity and Arithmetic

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Abstract:

We study various problems in proof complexity, bounded arithmetic, and intuitionistic arithmetic. We focus on topics such as lower bounds for different proof systems, connections between proof complexity generators and models of arithmetic, jump operators in proof complexity, and the non-locality of certain Kripke models of Heyting arithmetic.

Keywords:

Proof complexity, Lower bounds, Bounded arithmetic, Independence, Heyting arithmetic, Kripke models