

Proof Complexity By Jan Krajíček It stresses a view of proof complexity as a whole entity rather than a collection of various topics held together loosely by a few notions and it favors more generalizable statements. However upper bounds are not neglected: this book also explores the relations between bounded arithmetic theories and proof systems and how they can be used to prove upper bounds on lengths of proofs and simulations among proof systems.

Proof complexity is a rich subject drawing on methods from logic combinatorics algebra and computer science. This self-contained book presents the basic concepts classical results current state of the art and possible future directions in the field: Lower bounds for lengths of proofs often regarded as the key issue in proof complexity are of course covered in detail: It goes on to discuss topics that transcend specific proof systems allowing for deeper understanding of the fundamental problems of the subject. Proof Complexity

