

Subtraction-free complexity

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I will discuss the problem of dependence of computational complexity on the set of allowed arithmetic operations. An important role in this context is played by the notion of subtraction-free complexity, the version that allows addition, multiplication, and division, but not subtraction. This property is in particular satisfied by cluster transformations, which are used for subtraction-free computation of Schur functions.

No special background in complexity theory will be required. This is joint work with D. Grigoriev and G. Koshevoy (arXiv:1307.8425).