

Polytopes, successive minima, and the logarithmic Minkowski problem

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ABSTRACT

We discuss several extensions/variations of Minkowski's classical second theorem on successive minima. Among others, we present a (possible) "lattice point generalization" of this theorem which relates to Ehrhart theory of lattice polytopes and to the logarithmic Minkowski problem, a central problem in modern convex geometry.

Most of the given results are part of joint works with Karóly J. Böröczky [1], Matthias Henze&María Hernández Cifre [2], and Eva Linke [3].

[1] Martin Henk and Károly J. Böröczky, *Cone-volume measure and Stability*, [arXiv:1407.7272](#).

[2] Martin Henk, Matthias Henze, and María Hernández Cifre, *On extensions of Minkowski's theorem on successive minima*, Forum Mathematicum (accepted for publication), [arXiv:1405.4993](#).

[3] Martin Henk and Eva Linke, *Cone volume measures of polytopes*, *Adv. Math* 253, 50–62, 2014. ([arXiv:1305.5335](#)).

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