BACHELOR PROJECT
APPROXIMATIONS OF CONVEX SETS BY POLYTOPES

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Convex sets appear in many context throughout many areas of mathematics. Representing or approximating convex sets in special ways can be crucial for applications, for example in optimization. The goal of the project is to understand and develop a result of A. Barvinok (see [1]), describing the number of vertices needed in a good approximation of convex sets.

References

[1] A. Barvinok: *Thrifty Approximations of Convex Bodies by Polytopes.* International Mathematics Research Notices, 2014 (2014), 4341–4356.
`http://dept.math.lsa.umich.edu/~barvinok/thrifty.pdf`