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Separation in neighbourly convex 4-polytopes

Let O be any interior point of a neighbourly 4-polytope P. The Separation Problem concerns the minimum number k of hyperplanes (in real 4-space) that are sufficient to separate O from any facet of P. The conjecture (due to I. Gohberg, H. Hadwiger, A. Markus, and reformulated by K. Bezdek) is that $k < 16$.

We present a survey of progress on this problem in the last twenty years, and present recent results that are joint work with F. Fodor and D. Oliveros.