

## **Colorful simplicial depth**

Zuzana Patáková, IST Austria

The colorful simplicial depth of a collection of  $d+1$  finite sets of points in Euclidean  $d$ -space is the number of choices of a point from each set such that the origin is contained in their convex hull. We use methods from combinatorial topology to prove a tight upper bound on the colorful simplicial depth, which implies a conjecture of Deza et al. (2006).

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