The Structure of Convexity

Internal Theory

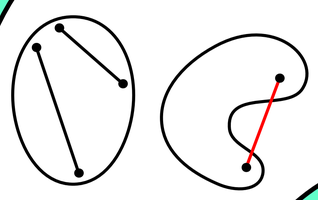
Definition

$(X, \mathcal{C})$ — ***convex space:***

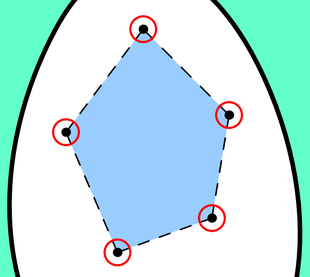
(1) $\emptyset,\ X \in \mathcal{C}$

(2) $\mathcal{A} \subset \mathcal{C} \Rightarrow \cap\mathcal{A} \in \mathcal{C}$

(3) $\mathcal{N} \subset \mathcal{C} \Rightarrow \cup\mathcal{N} \in \mathcal{C}$

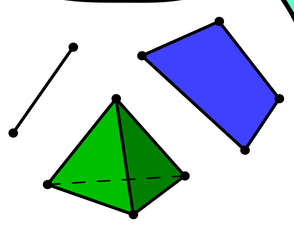


Idea

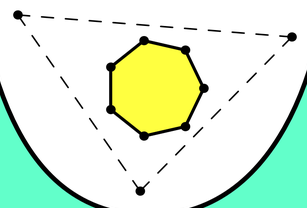


Freedom

Polytope

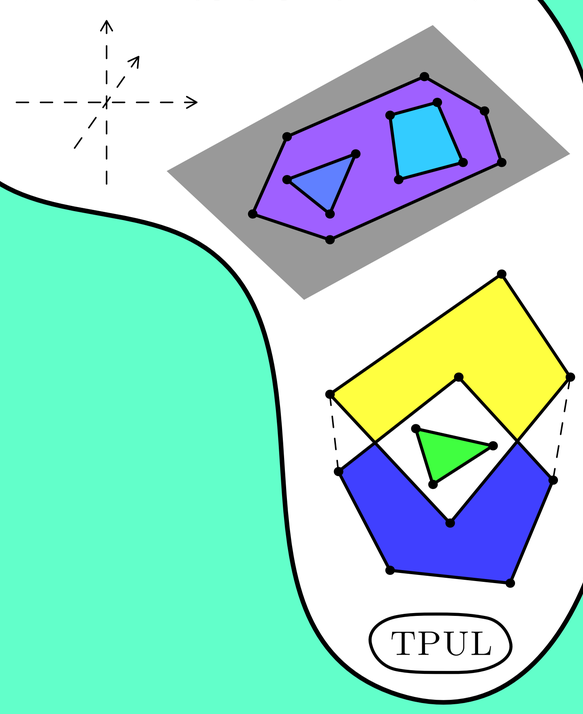


Dimension



Hyperplane

(Maximal net of polytopes of same dim.)



TPUL

Inducing Structure

Induced Structure

References

Uniquely Geodesic Spaces