

The set of all linear  $d$ -polyhedra embedded in  $\mathbb{R}^n$  will be denoted as  $\mathcal{P}^{d,n}$ . A polyhedron  $P \in \mathcal{P}^{d,n}$  coincides with the geometric carrier of a simplicial  $d$ -complex, and we write  $P = [\Sigma^d]$ . As an extreme example,  $o \in \mathcal{P}^{0,0}$  is the 0-polyhedron consisting of a single point—the set  $\mathcal{P}^{0,0}$  is a singleton and contains only  $o$ . A polyhedron is regular if any associated complex is regular.