ⓘ Info

This note, that was found here, as a part of a collection
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κ-simplicial complex

Definition. Definition

For $n \leq m$ a n-**plane** in $\mathcal{M}^m_\kappa$ is a submanifold isometric to $\mathcal{M}^n_\kappa$.
We say $n+1$ points in $\mathcal{M}^m_\kappa$ are in **general position** if they are not in any $n-1$-plane.
A **geodesic** n**-simplex** $S \subseteq \mathcal{M}^m_\kappa$ is the convex hull of $n+1$ points $P \subseteq \mathcal{M}^m_\kappa$ in general position

$$S = \mathrm{hull}(P)$$

where the points are called vertices of S.
A **face** $T \subseteq S$ is the convex hull

$$F = \mathrm{hull}(P')$$

of a non-empty subset of vertices $P' \subseteq P$ of S.
The **interior** of S is the set of points that do not lie in any proper face.

$$\mathrm{hull} : 2^P \to \mathrm{faces}(\mathrm{hull}(P))$$

Definition. Definition

Let

$$S_\lambda, \lambda \in \Lambda$$

be a family of geodesic simplices $S_\lambda \subseteq \mathcal{M}^{n_\lambda}_\kappa$. Let

$$X := \frac{\coprod_{\lambda \in \Lambda} S_\lambda}{\sim}$$

with projection

Current note has 0 direct children and 0 total descendants.

- stem
  - Convex sets in $\mathbb{R}^n, \mathbb{R}\boldsymbol{H}^n$ or S^n
    - κ-simplicial complex

And it has 2 siblings.

- stem
  - Convex sets in $\mathbb{R}^n, \mathbb{R}\boldsymbol{H}^n$ or S^n
    - Polyhedron gluings
    - κ-simplicial complex