

SIMPLICIAL COVERINGS

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ABSTRACT.

INTRODUCTION

1. PRELIMINARIES

We denote by \mathcal{S}_f the category of finite sets.

We denote by Δ the simplex category and by $s\mathcal{S}$ the category of simplicial sets.

[1] [2]

An abstract simplicial complex is a pair (S, \mathcal{K}) where S is a set and \mathcal{K} is a family of non-empty finite subsets of S such that, if $\sigma \subseteq \tau$ and $\tau \in \mathcal{K}$ then $\sigma \in \mathcal{K}$. A morphism between of abstract simplicial complex (S_1, \mathcal{K}_1) and (S_2, \mathcal{K}_2)

2. ABSTRACT SIMPLICIAL COVERINGS

3. SIMPLICIAL COVERINGS

Definition 3.1. *Let X be a simplicial set. A simplicial covering of X is a pair (Y, p) where Y is a simplicial set and $p: Y \rightarrow X$ is a simplicial map such that...*

Proposition 3.1. *Let X be a simplicial set and (Y, p) a simplicial covering of X . Then $(|Y|, |p|)$ is covering of $|X|$.*

Proof.

□

REFERENCES

- [1] Paul G Goerss and John F Jardine. *Simplicial homotopy theory*. Springer Science & Business Media, 2009.
- [2] J Peter May. *Simplicial objects in algebraic topology*, volume 11. University of Chicago Press, 1992.

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Date: October 11, 2019.

2000 Mathematics Subject Classification. Primary ****, ****; Secondary ****, ****.

Key words and phrases. Simplicial Sets, Coverings.