



# Topological Sigma Algebra

## 1 Why

We often take the topology of a topological space as the generating set for the sigma algebra.

## 2 Definition

Given a topological space, the *topological sigma algebra* is the sigma algebra generated by the topology.

## 3 Notation

Let  $(A, \mathcal{T})$  be a topological space. We denote the topological sigma algebra by  $\sigma(\mathcal{T})$ .