

# Reminder I

- Topological space  $(M, \mathcal{T})$  (set + open subsets)
- Neighbourhood of a point, Hausdorff property
- basis, countable basis  $\Rightarrow$  second countable
- subspace topology, connected, compact set
- $f: M \rightarrow N$  continuous, homeomorphism
- Topological manifold : Hausdorff + second countable topological space  $(M, \mathcal{T})$  such that any  $p \in M$  has a neighbourhood  $U$  homeomorphic to an open set of  $\mathbb{R}^m$ .

