

## 0.1 Transition maps

Where two charts overlap we can express the points where the charts overlap as two different coordinates.

We can express the mapping from these coordinates as a function. This is a transition map.

### 0.1.1 Overlapping charts

If two charts cover some of the same points on a manifold then we can define a function for those points where we move from one vector to another.

We can represent moving between charts as:

$$ab^{-1}$$